
Report of the Secretary of Defense Task Force on DoD Nuclear Weapons Management



Phase I: The Air Force's Nuclear Mission

September 2008

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The Honorable Robert M. Gates
Secretary of Defense
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12 September 2008

Dear Mr. Secretary:

The Task Force you appointed on 12 June has completed the first phase of its work, addressing the nuclear mission of the Air Force. The attached Phase I Report provides independent, professional advice on our findings and our recommended improvements in Air Force organization and stewardship. Such improvements are essential both to sustain public confidence in the safety and surety of our nuclear weaponry and to bolster clear international understanding in the continuing role and credibility of the U.S. nuclear deterrent.

As compared to its role in the Cold War, the nuclear mission is both different and more circumscribed. Nonetheless, it remains crucial. Other nations have substantial capabilities; some of which are growing. The number of nuclear states may be increasing—making the challenge of deterrence ever more complex.

The United States provides a nuclear umbrella over roughly thirty allied countries—in NATO, the Western Pacific, and the Antipodes. The U.S. deterrent thereby remains a principal barrier to proliferation for in its absence there is little question that others would seek to create their own nuclear capabilities. Consequently, the credibility of the U.S. deterrent remains essential in maintaining international stability.

It is understandable that the focus of the Air Force has been drawn to conflicts in the Gulf, the Balkans, and Afghanistan. Both inattention and conscious budget decisions have led to the atrophy of the Air Force's nuclear mission. But the balance must be restored. Though reduced in scope, the nuclear mission remains essential. The components of the nuclear mission must again become a coherent whole—and the *esprit de corps* of those who serve in it must be revived. The nuclear mission must be reinstituted as a continuing responsibility of the Air Force.

Throughout the Cold War, the uniqueness and power of nuclear weapons were largely understood. With the end of the Cold War, and the sharply reduced likelihood of a nuclear exchange, awareness of the role and power of nuclear weapons has diminished. But their power and uniqueness endure—and must again be clearly understood if they are to play their crucial role in nuclear deterrence.

Paradoxically, the goal for the nuclear deterrent is to be created—but not to be exercised in combat. If it deters attacks on the U.S., its allies, and its interest, its mission is successfully accomplished. The Air Force must make its own special contribution to the success of that mission.

The Task Force is proceeding with its work on Phase II, addressing the Department of Defense overall.

Respectfully yours,

James Schlesinger
Chairman

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12 September 2008

The Honorable Robert M. Gates
Secretary of Defense
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Dear Mr. Secretary:

We, the appointed members of the Task Force on Nuclear Weapons Management, pursuant to our charter do hereby submit the results of our findings on this first phase of our effort and offer our best recommendations.

Respectfully yours,

James Schlesinger
Chairman

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Executive Summary

Background

- Serious incidents in 2006 (a misshipment to Taiwan of intercontinental ballistic missile [ICBM] components) and 2007 (an unauthorized weapons transfer) alerted the Department of Defense (DoD) to the Air Force's mishandling of nuclear weapons and nuclear weapons-related materiel.
- The ensuing investigations revealed a serious erosion of focus, expertise, mission readiness, resources, and discipline in the nuclear weapons enterprise within the Air Force.
- In June 2008, Secretary of Defense Robert Gates appointed this Task Force on Nuclear Weapons Management to recommend necessary improvements and measures to enhance deterrence and international confidence in the U.S. nuclear deterrent. (See Appendix A.) The Task Force was appointed as a subcommittee of the Defense Policy Board, which will review and consider the Task Force's advice. Secretary Gates asked the Task Force to report on needed Air Force measures in 60 days and Department of Defense measures in 120 days. This report is the first of those two.

The Importance of Nuclear Deterrence

- Nuclear deterrence is achieved by credibly threatening a potential adversary with the use of nuclear weapons so as to prevent that adversary from taking actions against the United States, its allies, or its vital interests. This is accomplished primarily by maintaining sufficient and effective nuclear capabilities to pose unacceptable costs and risks upon the adversary should it so act.
- Nuclear weapons are unique in their physical, military, and political effects. Their special character is recognized by the especially tight control on their operational custody, handling, security, and their potential employment—which rests solely with the President.
- Because nuclear weapons have been less prominent since the end of the Cold War and have not been used since World War II, their importance and unique role as a deterrent have been obscured though not diminished.
 - **Though our consistent goal has been to avoid actual weapons use, the nuclear deterrent is “used” every day by assuring friends and allies, dissuading opponents from seeking peer capabilities to the United States, deterring attacks on the United States and its allies from potential adversaries, and providing the potential to defeat adversaries if deterrence fails.**
- The quality and credibility of U.S. nuclear forces, and New Triad forces more broadly, are critical to an effective deterrent.

- **The combination of capabilities in the “New Triad Concept”—the nuclear offensive forces of bombers, ICBMs, and submarine-launched ballistic missiles, plus long-range conventional weapons, strategic defenses, and a responsive nuclear weapons infrastructure—will provide the right mix of capabilities given the current and projected security environment.**
- The Task Force notes that the bomber force plays a critical role in deterrence. Its readiness posture can be changed visibly, signaling to potential opponents a growing preparedness to act. This, combined with the inherent flexibility of bombers compared to missiles, merits renewed emphasis in our deterrence and war planning.
- Russia is reshaping its doctrine and improving its nuclear arsenal toward greater reliance on nuclear weapons. There is a substantial set of experiments being conducted at its nuclear test site and President, now Prime Minister, Putin has publically declared his intention to deploy new weapon types based on “new physical principles.”
- China is modernizing and expanding the size and reach of its nuclear forces. North Korea and potentially Iran are developing their own nuclear weapons and delivery systems. In light of these and other geopolitical developments, it remains U.S. policy that the viability of nuclear deterrence is essential to our national security. The Air Force and the nation must comprehend and act upon this reality.

Atrophy of the Nuclear Mission

- **The Task Force found that there has been an unambiguous, dramatic, and unacceptable decline in the Air Force's commitment to perform the nuclear mission and, until very recently, little has been done to reverse it.**
 - Senior leadership decisions during the past 15 years have had the cumulative effect of compromising the Air Force's deterrent capabilities.
 - The change in bomber mission focus away from a cadre of nuclear-experienced personnel to conventional-warfare experienced Airmen was accompanied by a gradual decline in nuclear expertise, including in the senior leadership.
 - Stewardship of and focus on the policies, procedures, munitions handling processes, security, and operational exercise of nuclear weapons have been dramatically weakened.
 - The decision that junior officers assigned initially to ICBMs will spend the remainder of their careers in the space mission area devalued the nuclear mission area and had the effect of reducing the depth of Air Force nuclear experience, especially among midcareer and senior officers.
 - As a result, the readiness of forces assigned the nuclear mission has seriously eroded.

- The post–Cold War environment, the implementation of arms control treaties, attenuation of the nuclear alert posture, and the priority assigned to the conventional and space missions led the Air Force to give markedly less attention and fewer resources to the nuclear enterprise. The result was five broad, accelerating trends:
 1. Nuclear missions became embedded in organizations whose primary focus is not nuclear;
 2. Overwhelming emphasis was given to conventional operations;
 3. The grade levels of personnel in line and staff appointments whose daily business involved nuclear weapons were lowered;
 4. The nuclear mission and those who performed it were generally devalued; and
 5. There was no single command to advocate for the resources required to support nuclear capabilities. Collectively this meant that no one Command in the Air Force had “ownership” of the nuclear mission.
- The New Triad concept articulated in National and Defense policy documents is not generally understood by many of those involved in the Air Force nuclear mission. This lack of clarity is sensed all the way down to the crew level. In addition, the Air Force has not updated its doctrine on nuclear deterrence since 1998.
 - Lacking a complete understanding of the importance of the nuclear mission, the Air Force has experienced instances where personnel have failed to maintain discipline in following procedures, and some Airmen do not view the nuclear mission as vital.
 - **The Task Force recommends that the Air Force update its nuclear deterrence doctrine to bring it into alignment with the New Triad concept and that Air Force personnel connected to the nuclear mission be required to take a professional military education (PME) course on national, defense, and Air Force concepts for deterrence and defense.**

Leadership and Culture

- An essential element of leadership involves inspiring people to feel they are doing important work and are valued for it. We must restore *pride* among those who are performing the Air Force nuclear mission.
- Air Force leaders failed in their leadership responsibilities to shift priorities and adjust policies and resources in ways needed to maintain robust nuclear stewardship, resulting in the inattention that led to the Minot-Barksdale and Taiwan incidents.

- **The Task Force recommends that the Secretary of Defense require the Air Force to provide periodic reports on improving nuclear weapons management.**
- The Air Force has failed to establish adequate procedures and technical orders related to nuclear operations and support. Air Force streamlining efforts along with personnel reductions and allocation decisions led to significant degradation in the nuclear mission.
 - **The Task Force recommends that the Air Force review in detail all nuclear related instructions to the field to ensure they are current, consistent, and sufficient.**
- A rigorous inspection regime and Staff Assistance Visit (SAV) program are central to revitalizing a culture of accountability and responsibility.
 - Inspection processes are not standardized across major commands, inspectors are not appropriately trained, and inspections are not sufficiently comprehensive and frequent.
 - **The Task Force recommends that the Air Force overhaul and standardize its entire nuclear inspection process and ensure that the SAV program is adequately resourced, realistic, and staffed.**
- A robust nuclear exercise program is vital in maintaining capability and proficiency in mission execution and in demonstrating mission importance to Air Force personnel performing it. It is also an effective tool in motivating restraint by potential adversaries.
 - The Air Force nuclear exercise program has been marked by infrequency and low levels of unit participation.
 - **The Task Force recommends that the Air Force establish a policy for frequency, minimum acceptable levels of participation and performance, and a centralized waiver process for nuclear exercises.**
- The Air Force needs to focus on developing and managing nuclear-experienced personnel, particularly in maintenance and security personnel.
 - **The Task Force recommends the Air Force review its deployment, assignment and promotion policies to ensure that it develops personnel and future leaders who are nuclear qualified and that nuclear-focused careers provide opportunities for professional development and promotion to senior ranks.**
- Training and professional education are the key tools for generating a culture of nuclear excellence.
 - After the Cold War ended, both training and education in nuclear matters were streamlined to the point of near elimination.
 - Our review of the PME curricula for officers and enlisted personnel revealed that the concept of nuclear deterrence and the role of nuclear

weapons in international security policy have fallen out of the core military doctrine taught in the Air Force PME.

- **The Task Force recommends that the Air Force review its PME and expand attention to nuclear matters throughout. Every Air Force officer and key enlisted personnel should be required to take appropriate nuclear-related PME offerings.**

Organization

- The Task Force believes that a *significant* organizational change is required to restore the Air Force's attention to and readiness for the nuclear mission.
 - Today no senior leader in the Air Force "owns" the nuclear mission. The current organization is not properly structured to meet requirements.
 - Assigning a major Air Force command the responsibility for representing all Air Force nuclear-capable forces to U.S. Strategic Command (USSTRATCOM) will create nuclear mission alignment with that globally focused customer.
 - The Task Force believes that the nuclear deterrence mission demands an uncompromising standard of accountability and responsibility and that consolidation of Air Force nuclear forces in a single major command will set the stage for a revitalized nuclear culture.
- **The Task Force therefore recommends that the Air Force redesignate Air Force Space Command (AFSPC) as Air Force Strategic Command (AFSTRAT) and vest it with appropriate authority and accountability. The missions of the new AFSTRAT should be aligned with those of USSTRATCOM.** The creation of AFSTRAT will—
 1. Clearly align mission focus with that of the primary combatant commander it supports;
 2. Centralize resource advocacy for the nuclear mission;
 3. Provide clear unambiguous lines of authority and accountability; and
 4. Provide appropriate manning with expertise at the right levels and in the right disciplines.
- **In addition to the creation of AFSTRAT, the Task Force also recommends the consolidation of all bombers in a single Numbered Air Force (NAF) that is divested of all other missions.**
 - The "bomber" NAF should be assigned to AFSTRAT, resulting in a single major command—AFSTRAT—being responsible for advocating nuclear capability from organize, train and equip functions through pertinent resourcing and support functions.
 - This NAF would manage and provide trained bomber forces to fulfill demands for conventional employment, either to USSTRATCOM or in

response to regional Joint Force Commanders through Joint Forces Command (JFCOM).

- Organizational changes alone will not effect the needed resuscitation of the Air Force's nuclear mission. **However, this Task Force concludes that less comprehensive organizational changes would fail to address some of the main root causes of the nuclear mission's decline in priority.**
- The Air Force has begun reorganizing its nuclear sustainment functions with the creation of the Nuclear Weapons Center (NWC).
 - The Task Force commends the increased role of the NWC for nuclear weapons and missile delivery systems.
 - **However, it recommends further organizational changes to provide a more centralized nuclear acquisition and sustainment community under the Air Force Materiel Command (AFMC).**
- Air Force leaders have failed to support appropriate resource allocation for the nuclear deterrence mission. As a result, mission readiness has been significantly degraded.
 - **The Task Force recommends that the Secretary of the Air Force; the Chief of Staff of the Air Force; the commander of a newly designated Air Force Strategic Command (see below); the Director of Nuclear Operations, Plans, and Requirements (AF/A3/5N); and the Commander of the Nuclear Weapons Center review on a quarterly basis resource allocation and mission readiness for the Air Force nuclear mission. This should begin immediately in order to influence FY10 budget decisions.**

Sustainment

- The Task Force addressed two major issues in reviewing the Air Force system to maintain nuclear forces:
 1. The adequacy of supply chain processes, which include the inventory management system, inventory validity, procedural compliance, and information technology systems; and
 2. The lack of clear ownership of the ICBM engineering community by a major command, with the result that ambiguity exists over who is responsible for supporting maintenance operations.
- The Air Force commissioned an assessment team, chaired by the head of the Air Force NWC, to review the nuclear sustainment enterprise and document significant findings on the issues set forth above.
 - As a result, the Air Force has developed an asset accountability system to achieve strict inventory control over nuclear weapons-related materiel.

- The Task Force judges that this “positive inventory control” system should be able to identify and account for the condition and location of all nuclear-related materiel anywhere in the supply chain at any point in time.
 - The Task Force endorses the Air Force's decision to maintain exclusive control over each asset throughout its life cycle thus reclaiming wholesale distribution responsibilities from the Defense Logistics Agency.
- The Air Force has also reviewed the nuclear sustainment organizational structure and has centralized key management functions under the NWC.
 - Program management for ICBMs, cruise missiles, weapons trainers, and bomber weapons interface equipment has been consolidated under this organization.
 - The official definition of nuclear weapons-related materiel does not cover all sensitive nuclear weapons components, such as ICBM Guidance Section and Aircraft Code Enabling Switches that are integral to nuclear weapons delivery systems. **The Air Force should create another category of such assets that is governed by the same asset accountability requirements as nuclear-related materiel and manage the life cycle of these components as well.**
 - An Air Force assessment has recommended that the sustainment reporting chain for the 526th ICBM Systems Group be through NWC to AFMC. **The Task Force concurs and also recommends that ICBM expertise be required for senior leaders of the 526th.**

Conclusion

- The Air Force has recently established a Nuclear Task Force that is designing a comprehensive road map to address the shortcomings identified by this and other reports.
- The Air Force is currently tracking more than 180 corrective actions and is analyzing the root causes of the erosion of its nuclear mission.
- **The Task Force believes these actions reflect a commendable effort to establish a solid foundation for change. However, it will take a concerted and sustained commitment by the Air Force leadership at all levels to restore the culture and ethos of nuclear excellence.**
- Air Force leaders are now saying the right things—the question is whether there ultimately will be sufficient follow through. The Task Force believes the measures recommended in this report can help ensure that the needed revitalization does occur.

Recommendations

The following is a complete list of recommendations from the report, some of which were not addressed in this executive summary.

Leadership and Culture Recommendations

1. The Secretary of Defense should direct the Air Force to provide periodic reports on the Service's progress towards improving nuclear weapons management.
2. The Vice Chief of Staff of the Air Force should undertake a thorough review of all nuclear-related Air Force instructions, policies, and documentation to ensure these publications are consistent, current, accurate, and sufficient to support field operations. Additionally, the Air Force should establish an agile and fully resourced system for managing interim changes and clarification messages for nuclear-related procedures and publications. This review should be completed by September 2009.
3. Major Command (MAJCOM) commanders should promulgate policy requiring Inspector General involvement in the process of developing operational and procedural guidance for nuclear-related inspections. This should be completed by December 2008.
4. The Deputy Chief of Staff of the Air Force for Operations and Requirements (A3/5) should establish a policy for frequency and minimum acceptable levels of participation and designate a central waiver authority for nuclear exercises. All requirements and planning should be promulgated by September 2009.
5. The Air Force Inspector General should spearhead the overhaul and standardization of the nuclear inspection process across the Air Force. Nuclear Operational Readiness Inspections (NORIs) should occur at intervals of 36 months or less. This review and policy implementation should be in place by the end of March 2009.
6. The Chief of Staff of the Air Force (CSAF) should establish guidance for the conduct of SAVs and ensure the program is appropriately resourced and staffed with expert personnel. All program elements, policy, and resources should be in place by September 2010.
7. The Secretary of the Air Force (SECAF) should provide the resources necessary for the initiatives required to upgrade and revitalize the nuclear mission. This should include all resources necessary to support the implementation of the Global Deterrent Force (GDF) concept for B-52s. This should be a specific matter for the Secretary of Defense review recommended in this section. (See recommendation 1.)
8. The Air Force should move to a 12-month rotation for each unit assigned to the GDF.

9. The Deputy Chief of Staff of the Air Force for Manpower and Personnel (AF/A1) should define nuclear-critical billets and identify critical nuclear positions as “must fill” on Unit Manning Documents. This should be completed by October 2009.
10. The Deputy Chief of Staff of the Air Force for Manpower and Personnel (AF/A1), in conjunction with Career Field Managers, should assess manpower standards for all career fields supporting the nuclear mission by October 2009.
11. The Deputy Chief of Staff of the Air Force for Manpower and Personnel (AF/A1) should designate personnel assigned to key operational unit nuclear billets as “deployed in place” and receive credit commensurate with deployment for promotion board purposes. This should be completed no later than October 2009.
12. The Deputy Chief of Staff of the Air Force for Manpower and Personnel (AF/A1) should ensure nuclear unit commanders have the ability to reclaim voluntary deployment requests by unit personnel. This should be completed no later than October 2009.
13. SECAF should include guidance to successive promotion and special selection boards emphasizing the need to promote and develop sufficient numbers of highly experienced nuclear personnel to fill critical nuclear positions. A plan for providing this guidance should be in place no later than December 2008.
14. The Deputy Chief of Staff of the Air Force for Manpower and Personnel (AF/A1) should authorize and assign intelligence officers to each of the three missile wings and to Headquarters, 20th Air Force. This should be completed by March 2010.
15. The Commander, Air Education and Training Command should conduct a curriculum review of all Air Force Professional Military Education and expand educational offerings on nuclear deterrence, strategy, and operational theory. The curriculum review should be completed no later than May 2009 with the new curriculum added to appropriate courses beginning with the 2009–2010 school year.
16. The Air Force should conduct more numerous, small-scale wargames aimed at shaping internal attitudes on nuclear weapons. This should be initiated by October 2009.
17. The Air Force should establish a school for nuclear operations focused on professional excellence in the nuclear deterrence mission. This should be done by October 2010.
18. CSAF should initiate a Senior Mentor Program for nuclear operations fashioned after the JFCOM approach for Joint Task Force Operations. This should be completed no later than November 2008.

Organization Recommendations

1. The Secretary of the Air Force (SECAF) and CSAF should redesignate Air Force Space Command (AFSPC) as Air Force Strategic Command (AFSTRAT). This should be completed by September 2009.
2. SECAF and CSAF should direct the assignment of all Air Force bombers to 8th Air Force. This should be completed by September 2009.
3. SECAF and CSAF should direct the removal of all non-bomber-related missions from 8th Air Force (e.g., Intelligence, Surveillance, and Reconnaissance [ISR] and cyber-related organizations) and their reallocation to other Air Force commands. This should be completed by September 2009.
4. SECAF and CSAF should direct the reassignment of the reconstituted 8th Air Force from Air Combat Command (ACC) to AFSTRAT. This should be completed by September 2009.
5. SECAF and CSAF should direct a review and validation of manning and resourcing of AFSTRAT headquarters, ACC headquarters, strategic missile and bomber NAFs, and their assigned wings. The revalidation and assignment actions should be completed by September 2009.
6. SECAF and CSAF should evaluate the grade structure of the NAF commanders assigned to AFSTRAT to ensure that the ranks of the various NAF commanders are equitable. This should be completed by September 2009.
7. CSAF should direct the consolidation of CONUS and USAFE-controlled weapons storage areas under NWC. This should be completed by September 2010.
8. SECAF and CSAF should realign the Space and Missile Systems Center from AFSPC to AFMC and realign functions associated with ICBMs and cruise missiles, including PEO responsibilities, under NWC. This should be completed by September 2009.
9. SECAF should designate Commander, AFMC as the Executive Agent for Air Force nuclear weapons and nuclear weapons-related materiel. This should be completed by September 2009.
10. CSAF should strengthen the Air Staff nuclear oversight and policy function by adding a one-star general officer billet to the office of the Director of Nuclear Operations, Plans, and Requirements (AF/A3/5N). CSAF should also conduct a review to establish the appropriate level of additional staff support required. This should be completed by September 2009.
11. The Task Force recommends that the Secretary of the Air Force, the Chief of Staff of the Air Force, the commander of a newly designated Air Force Strategic Command, Director of Nuclear Operations, Plans, and Requirements (AF/A3/5N), Commander

of the Nuclear Weapons Center, and Commander USSTRATCOM review on a quarterly basis resource allocation and mission readiness for the Air Force nuclear mission. This should begin immediately in order to influence FY10 budget decisions.

Sustainment Recommendations

1. The Air Force Deputy Chief of Staff for Logistics, Installations & Mission Support (AF/A4/7) should develop guidance for creating a second category of assets that encompasses other sensitive nuclear delivery system components, which are distinct from nuclear weapons-related materiel but should be governed by the same requirements. The NWC Commander should identify and certify the list of items that fall within this asset category by September 2009.
2. The Air Force Deputy Chief of Staff for Logistics, Installations & Mission Support (AF/A4/7) should redesignate asset accountability personnel to distinguish those directly involved with the nuclear weapons-related materiel supply chain (and potentially other sensitive nuclear delivery system components) from inventory managers by September 2009.
3. The Task Force concurs with the Air Force's action to codify the organizational change for the 526th ICBM Systems Group to report through NWC to AFMC. Additionally, ICBM expertise should be required when filling the senior leadership positions within the 526th ICBM Group.
4. AFMC should reassess the division of technical engineering support provided to the ICBM missile maintenance organizations to ensure unity of effort under a single entity.

Section 1. Background

Two events that occurred in 2006 and 2007 alerted senior Department of Defense (DoD) officials to unacceptable practices in the handling of nuclear weapons and nuclear weapons-related materiel within the U.S Air Force. One incident was the unauthorized weapons transfer from Minot Air Force Base (AFB) in North Dakota to Barksdale AFB in Louisiana in August 2007, which was due to a breakdown in procedures in the accounting, issuing, loading, and verification processes.

The other incident involved the misshipment of four forward-section assemblies used on the Minuteman III intercontinental ballistic missile (ICBM). The assemblies are sensitive missile components and, as such, require special handling. Owing to errors and omissions in inventory control and packaging, on two separate occasions in October and November 2006, assemblies were sent to Taiwan. These shipments were intended to fulfill a foreign military sales order for helicopter batteries. Because of subsequent deficiencies in supply chain management, the components were not properly recovered until March 2008.

Despite the decreased inventory of nuclear weapons, there has never been a stated or implied willingness on the part of national leaders to permit, allow, or tolerate a lessening of the “zero-defects” standard regarding the safety, security, and reliability of U.S. nuclear forces or weapons. Yet, the investigations that followed each of these incidents revealed a serious erosion of expertise and discipline related to the nuclear weapons enterprise within the Air Force.

In view of clear shortcomings in nuclear mission capability and the essentiality of that mission's crucial role for national security, Secretary of Defense Robert Gates on June 12, 2008, appointed a Task Force on Nuclear Weapons Management as a subcommittee of the Defense Policy Board to address the problem. (See Appendix A.) The Task Force was chartered to recommend improvements necessary to ensure that the highest levels of accountability and control are maintained in the stewardship and operation of nuclear weapons, delivery vehicles, and sensitive components. The Task

Force was also charged with recommending measures both to enhance and sustain public confidence in the Defense Department's ability to handle its nuclear assets safely and to foster a clear international understanding of the continuing role and credibility of the U.S. nuclear deterrent. The Task Force was asked to report to the Secretary of Defense in two phases, the first of these to deal with matters related to the Department of the Air Force. They are covered in this report. The second phase, an examination of nuclear matters in DoD as a whole, will be addressed in a follow-on report.

Investigative reports reviewed by the Task Force identified the following key problems in the U.S. Air Force's nuclear posture:

- Underinvestment in the nuclear deterrent mission is evident, undercutting the nation's deterrence posture
- Nuclear-related authority and responsibility are fragmented
- Processes for uncovering, analyzing, and addressing nuclear-related compliance and capability issues are ineffective
- Nuclear-related expertise has eroded
- A critical self-assessment culture is lacking
- No comprehensive process exists to ensure sustained investment advocacy

This Task Force takes note of and commends the Air Force for addressing problems in several key areas previously identified within the nuclear mission. The following are some key initiatives that are completed or in progress:

- The Secretary of the Air Force, Chief of Staff of the Air Force, and other senior leaders have announced a strong commitment to restoring top-to-bottom excellence in the nuclear enterprise.
- Program management, sustainment, and logistics functions for the nuclear enterprise are being consolidated within the Nuclear Weapons Center (NWC). This effort began in March 2006.
- To provide a more centralized authority for nuclear weapons acquisition, sustainment, and logistics functions, the Air Force is expanding the role of the NWC following reviews of the Barksdale-Minot and Taiwan incidents.
- Positive Inventory Control (100 percent accountability and visibility) is being implemented to ensure strict asset accountability for nuclear weapons-related

materiel. This reverses previous Air Force decisions in the 1990s that moved these items to general commodity management.

- The Air Force is establishing a Global Deterrent Force concept to operationalize the bomber portion of the nuclear triad. This initiative provides rotational bomber forces that are fully dedicated to the nuclear mission for an allotted period of time.
- The Air Force realized weaknesses in the Air Staff focus on nuclear matters and in 2007 established the Director of Nuclear Operations, Plans, and Requirements (AF/A3/5N) to provide daily headquarters attention to the nuclear mission.

Data to support the Task Force's findings and recommendations came primarily from extensive research and field interviews. The following individuals were interviewed:

- The Honorable Michael Donley, Acting Secretary of the Air Force
- General Norton Schwartz, Air Force Chief of Staff
- General Kevin Chilton, Commander, United States Strategic Command
- General C. Robert Kehler, Commander, Air Force Space Command
- General John Corley, Commander, Air Combat Command
- General Roger Brady, Commander, United States Air Forces Europe
- General Bruce Carlson, Commander, Air Force Materiel Command
- Lieutenant General Frank Klotz, Assistant Vice Chief of Staff
- Lieutenant General Raymond Johns, Deputy Chief of Staff for Strategic Plans and Programs, Headquarters Air Force
- Lieutenant General Ronald Sams, Air Force Inspector General
- Lieutenant General Robert Elder, Commander, 8th Air Force
- Major General Floyd Carpenter, Vice Commander, 8th Air Force
- Major General Thomas Deppe, Vice Commander, Air Force Space Command
- Major General Michael Worden, Vice Commander, Air Combat Command
- Major General Roger Burg, Commander, 20th Air Force
- The Honorable Robert Smolen, Major General, USAF (Ret.), Deputy Administrator for Defense Programs, National Nuclear Security Administration

- Brigadier General Everett Thomas, Commander, Nuclear Weapons Center
- Brigadier General Donald Alston, Headquarters Air Force A3/5N
- Brigadier General Joseph Reynes, Jr., Air Combat Command Inspector General
- Colonel Robert Wheeler, 2d Bomb Wing Commander
- Colonel Joel Westa, 5th Bomb Wing Commander
- Colonel Michael Morgan, 90th Missile Wing Commander
- Colonel Christopher Ayres, 91st Missile Wing Commander

Task Force members visited the following sites:

- Langley Air Force Base (AFB)
 - Air Combat Command
- Barksdale AFB
 - 8th Air Force
 - 2d Bomb Wing
- Minot AFB
 - 91st Missile Wing
 - 5th Bomb Wing
- F.E. Warren AFB
 - 20th Air Force
 - 90th Missile Wing
- Peterson AFB
 - Air Force Space Command
- Offutt AFB
 - United States Strategic Command

The Task Force members also consulted selected reports to complement their experience, professional knowledge, and research over the past decades. These reports are listed in Appendix B.

Section 2. The Nuclear Deterrence Mission

Nuclear deterrence is designed to dissuade an adversary from taking action against the United States, its allies, or its vital interests. It does so by credibly threatening to impose costs and risks upon the adversary that would result in unacceptable consequences. The heart of a credible and effective deterrent is the regular exercise of procedures demonstrating the capability to execute the mission. It is the convincing and widely recognized *ability to execute*—and thus the *ability to influence the perceptions, plans, and actions of one's adversaries*—rather than actual execution that constitutes the essence of deterrence. It should be noted that there has been remarkable continuity on this fundamental point in U.S. nuclear deterrence policy for the past several decades.

Nuclear weapons are unique in their attributes: blast, prompt radiation, fallout, and lingering radioactivity combine to achieve unparalleled destructive power. These attributes are obscured by the generic description of them as simply “kinetic” weapons—a bland Pentagon phrase that vastly understates their nature and potential effects. Their enormous destructive capacity underwrites their unique deterrent capability.

Deterrence depends on the firm conviction on the part of a possible adversary that punishment would be swift and appropriate. The success of the deterrence mission explains why the Strategic Air Command could justifiably assert during the Cold War that “Peace is our Profession.” For the purpose of deterrence, what matters is the *acknowledged ability to execute* combined with the *will to do so*. The continuing paradox of the nuclear mission is that—without its recognized capabilities ever being employed—it achieves its objective by deterring potential foes from taking action that they might otherwise take. All involved with nuclear weapons must understand this singular nature of deterrence.

The reality of nuclear deterrence permeates the international environment to such a degree that these weapons have never been used in conflict since the end of World War II. The key mission of deterrence is being accomplished every day that no one attacks the United States, its allies, or its vital interests with nuclear weapons. Similarly,

because of nuclear deterrence, the Warsaw Pact did not initiate a massive conventional attack during the Cold War. Throughout the Cold War everyone understood the uniqueness and power of nuclear weapons. Since the end of the Cold War, that awareness has dimmed, but the uniqueness and deterrent power of nuclear weapons remain.

In recent decades, the role of nuclear deterrence in American security strategy has inevitably become less central than it was during the Cold War. Faced with two major conventional military confrontations, the Air Force has shifted its focus away from nuclear missions. As a consequence, the concept of nuclear deterrence has receded from the attention not only of the Air Force but also of the national leadership and the general public.

Despite these trends, many allied and friendly countries—roughly 30, including NATO and our Pacific allies—continue to depend on the security provided by the nuclear umbrella of the United States. Moreover, the continuing credibility of our nuclear deterrent is what assures a number of these countries that they do not need to develop their own nuclear weapons. If our deterrent is perceived as less than credible, the more technologically advanced nations among our allies could well begin to develop their own nuclear capabilities.

Russia is improving its nuclear arsenal and reshaping its doctrine towards greater reliance on nuclear weapons. Since the breakup of the Soviet Union, Russia continues to conduct research and development at its nuclear test site. President, now Prime Minister, Putin has publicly declared his intention to deploy new weapon types based on “new physical principles.” Most recently, in expressing opposition to basing elements of a U.S. missile shield in Eastern Europe, Colonel General Anatoly Nogovitsyn, Deputy Chief of Staff of the Armed Forces of the Russian Federation—in a clear warning to Poland—stated that Russia’s military doctrine sanctions the use of nuclear weapons “against the allies of countries having nuclear weapons if they in some way help them.”¹

The Chinese continue to expand the size and reach of their nuclear forces. North Korea and, potentially, Iran are developing their own nuclear weapons and delivery systems. In light of these developments, the United States clearly needs to maintain and,

¹ Jim Heintz, “Russia: Poland risks attack because of U.S. missiles.” Associate Press, August 15, 2008.

where necessary, modernize its nuclear offensive forces—even as it continues substantial force reductions as agreed in the Strategic Offensive Reductions Treaty (SORT) signed in 2002—so that the nuclear deterrent remains strong.

It is especially important that the nation maintain a credible nuclear bomber capability because of its flexibility in visibly signaling intent through dispersal, deployment, employment, and recall options. During a Task Force visit to operational nuclear units, one wing commander observed, “Just as we fight for a purpose, we also deter for a purpose.” Moreover, he noted that no one at higher levels has made this point.

The current U.S. strategic posture rests on the “New Triad” concept first set forth in the 2001 Nuclear Posture Review. In essence, it comprises the existing triad of nuclear offensive bombers, intercontinental ballistic missiles, and submarine-launched ballistic missiles, augmented by long-range conventional strike, strategic defenses, and a responsive nuclear weapons infrastructure. Given the likelihood of further proliferation of nuclear weapons and missiles in the future and the consequent challenge to the United States of preserving its own nuclear deterrence capabilities, there is a compelling case for also building a robust strategic defense capability as the New Triad concept envisions.

The United States and its allies continue to face potential threats of attack by nuclear weapons and other weapons of mass destruction (WMD). There can and should be no question about our capacity and will to retaliate swiftly and with certainty. That remains the essence of deterrence, as relevant today as at any time in our post–World War II history. The stated policy of the Administration is—

The United States has made clear for many years that it reserves the right to respond with overwhelming force to the use of weapons of mass destruction against the United States, our people, our forces, and our friends and allies. Additionally, the United States will hold any state, terrorist group, or other nonstate actor fully accountable for supporting or enabling terrorist efforts to obtain or use weapons of mass destruction, whether by facilitating, financing, or providing expertise or safe haven for such efforts.

The end of the Cold War has clearly reduced the salience of nuclear weapons. However, the continuing need for nuclear weapons to ensure the security of the United States and its allies has not abated. The character of the threat, advanced weapons

systems, and the geopolitical situation have all changed, but the nuclear deterrence mission remains an essential component of the nation's defense strategy. That mission has not declined in importance even though now fewer weapons are required to accomplish the task. The visible and credible capability to perform the nuclear-deterrence mission will remain an indispensable element of the U.S. defense posture for at least as long as other nations have or are pursuing nuclear weapons, other WMD, or the means to produce them. The Air Force, the Department of Defense, other government entities, and the country at large must fully comprehend and act upon these continuing realities.

Section 3. Atrophy of the Nuclear Mission

Military forces must adapt to evolving political circumstances. Changes made by the Air Force after the Cold War were in response to the defense downsizing of the 1990s as well as national leadership priorities. Just as Strategic Air Command (SAC) was being dissolved, the Air Force and other services were experiencing severe resource constraints. With less national emphasis on nuclear weapons during this period, the Air Force failed to grasp the continued need to maintain a viable airpower-based nuclear deterrent capability. Moreover, as the size of the nuclear arsenal was reduced and emphasis shifted to conventional missions, the Air Force failed to articulate the continuing value of the nuclear deterrent.

Organizational Changes and Their Impact on the Nuclear Enterprise

The Air Force's decision to dissolve SAC was approved by the Joint Chiefs of Staff and the Department of Defense. It grew out of both the collapse of the Soviet Union and experiences during Desert Storm, which generated new thinking within the Air Force about future warfare. This revised thinking was reflected in then Air Force Chief of Staff General Merrill McPeak's statement in 1991 that the triad was "overinsurance . . . one leg of the triad could inflict such massive damage on any potential opponent that it alone would suffice to deter any rational person."² The new focus for the bomber force—conventional operations—was reflected in the SAC Commander's assessment of his organization's role during Desert Storm: "SAC was not prepared to participate in a conventional war of that magnitude. . . . We were not focused culturally, intellectually, or logistically to go to war in the Gulf."³

Upon the disestablishment of SAC, bombers and fighters were combined under one organization, the Air Combat Command (ACC); this organizational change marked the end of an Air Force dedicated to the nuclear mission. ACC was essentially given the combined missions of the Strategic Air Command and Tactical Air Command (TAC) in

² *History of the Strategic Air Command*, Vol. I. 1 January–31 December 1991. Office of the Historian, Headquarters Strategic Air Command, p. 15.

³ *Ibid.* 24.

the belief that one command of ready forces could “do it all.” At the same time, the post–Cold War drawdown reduced the number of senior Air Force leadership positions. The newly designated Air Mobility Command inherited the tanker force and missions from SAC, and SAC’s land-based ICBM force was initially given to ACC, but it eventually became part of Air Force Space Command (AFSPC). USSTRATCOM, a joint command, was established to deter and to employ forces that were deemed to have strategic effect and to provide the key link between nuclear forces and national strategy. ACC’s culture became centered on the employment of conventional munitions using fighter aircraft.

In 1993, Air Force Chief of Staff General Merrill McPeak described the B-52 as a “sunset system.”⁴ The makeup of the senior Air Force leadership gradually began to shift: the nuclear weapons-focused, bomber-experienced officers who had previously monopolized senior positions became a minority, and those remaining had to adapt to the ascendant group drawn from conventional weapons-focused fighter pilots. As a consequence, the special culture that had surrounded the nuclear enterprise dissipated.

In retrospect, changes associated with the reconceptualization of warfighting had deleterious effects on nuclear force structure and mission focus. The rise of the air expeditionary concept, effects-based operations, and a rethinking of the strategic defense policy in the first decade of the 21st century resulted in a shift in the Air Force’s thinking on “strategic” warfare. The post–Cold War atmosphere, the effects of various arms control treaties, and the relaxation of the nuclear alert posture led the Air Force to devote less attention and fewer resources to nuclear matters, and thus its overall focus on the nuclear mission gradually diminished. Based on the studies reviewed and visits to various Air Force commands, the Task Force noted five major shortcomings relative to nuclear mission performance:

1. Nuclear functions embedded in nonnuclear organizations;
2. Diminished senior leadership focus on the daily business of the nuclear enterprise;
3. Fewer nuclear-experienced personnel;
4. Overwhelming focus on conventional warfighting readiness and capabilities; and

⁴ “McPeak Anticipates 100-Bomber Force at Turn of Century,” *Aerospace Daily*, Vol. 168, No. 43, December 6, 1993, p. 369.

5. General devaluation of the deterrence mission and those who perform it.

The merger of SAC and TAC into ACC resulted in the reduction, consolidation, and elimination of training schools focused on the nuclear mission. Over time, the Combat Crew Training School (CCTS), Combat Flight Instructor Course (CFIC), Strategic Weapons School (SWS), and Bomber Weapons Instructor Course (BWIC) changed as they were combined to form a new weapons school more conceptually related to the Fighter Weapons School. The bomber community dutifully “pursued the ACC order to change the emphasis of initial qualification training to conventional training instead of nuclear operations,” and by 1995 conventional employment modules had been integrated into training syllabi.⁵ The elimination of SAC training and the subsequent change in training focus marked a transition in culture throughout the bomber communities as the problem-solving and flexibility typical of fighter pilots were rewarded and mind-sets characteristic of those with nuclear experience were devalued. In 1992, each crew flew 12 training missions: 10 of these were nuclear-training missions and two were used to teach the employment of conventional weapons. By 2006, bomber crews commonly reported to their new commands with conventional-only combat certification.⁶

When it was established in 1992, USSTRATCOM's only mission was to implement national nuclear deterrence policy. However, as part of an ongoing initiative to reform and update the organizational structure of the Department of Defense, USSTRATCOM and U.S. Space Command merged in 2002. The rise in the importance of other global missions expanded USSTRATCOM's missions to include the following:

- Strategic Deterrence
- Global Strike
- Space Operations
- Intelligence, Surveillance, and Reconnaissance (ISR)
- Integrated Missile Defense (IMD)

⁵ Tyrell A. Chamberlain, Major USAF, “Transition of the B-52 Bomber from SAC to ACC: A Case Study of Transformation,” School of Advanced Air and Space Studies, Maxwell-Gunter Air Force Base, Montgomery, AL, pp. 51–52, June 2006.

⁶ Ibid. and confirmed by discussion with 2d Bomb Wing training personnel.

- Information Operations
- Global Network Operations (GNO)
- Combating Weapons of Mass Destruction (WMD)

With this multiplicity of missions, USSTRATCOM's leadership and staff did not have sufficient time or resources to maintain a singular focus on the nuclear mission. The assumption was that the nuclear mission could sustain itself with less staff oversight while the new missions were being established. In particular, the bomber and cruise missile elements of the nuclear capability lost their priority.

Less directly, the nuclear enterprise suffered further inattention as a result of the base realignment and closure (BRAC) process in 1995. The San Antonio Air Logistics Center (SA-ALC), which was the sole centralized Air Force nuclear sustainment center, was closed. The responsibilities of the Special Weapons Directorate (SWD) were distributed to six other Air Force organizations on the basis of the mission capabilities and capacities of the remaining conventional weapons-focused centers. The management and maintenance of ICBM reentry system components was transferred to the Air Logistics Center in Ogden, UT and consolidated with the management of other missile system components. Ultimately these BRAC actions reduced the scope for specialized management of several key nuclear weapons-related components, including the Mk-12 forward-section assemblies that were involved in the Taiwan misshipment. From this point forward, as an outcome of the "streamlining" efforts of the Air Force and BRAC process, many of the nuclear-related components fell under general commodity management systems, including the services provided by the Defense Logistics Agency.

The dispersal of the responsibilities that had been concentrated within the SWD necessitated policy changes, which were made without taking into account the uniqueness of the nuclear enterprise. For example, approximately 12,000 Air Force nuclear weapons-related items, including the Mk-12 forward-section assemblies, were transferred into a system that managed them as regular commodities. This decision essentially eliminated the special materiel handling requirements normally associated with tracking nuclear weapons-related components and thereby increased the likelihood that materiel would be lost. In effect, these moves—undertaken without an adequate assessment of their risks—

transferred control of materiel management to entities that lacked both appreciation of the need for heightened management and the capabilities to achieve it.

Nuclear Weapons and Delivery System Reductions

The Defense Science Board (DSB) took note of the impact of the reduction of nuclear delivery systems as compared to the reduction of operationally deployed warheads.⁷ When the post–Cold War arms control treaties are fully implemented, the United States will have reduced its nuclear forces and weapons from more than 9,000 operationally deployed strategic nuclear warheads in the late 1980s to no more than 2,200 by 2012. However, the goal of an approximately 75 percent reduction in the number of operational warheads deployed did not result in a proportional reduction in the complexity of the nuclear enterprise—in fact, a significant array of delivery vehicles and weapon types would still have to be sustained and employed. From 1990 to 2007, the Air Force eliminated seven of 20 systems, including aircraft capability, ICBM types, etc. As a result, the number of delivery systems in the Air Force declined only 35 percent. That said, reliance on fewer delivery systems and warheads does not consequently reduce the requirement for vigilance in the stewardship of the remaining nuclear capabilities.

Cascading Effects

Resources

Since the end of the Cold War, resources dedicated to the nuclear deterrence mission have been reduced far more sharply than in other areas of the defense budget. Although it was not uncommon to include nonnuclear capabilities under the “strategic” category, the Major Force Program for Strategic Forces was cut by roughly 65 percent in constant dollars from 1990 to 2007. Current conflicts turned conventional force readiness into the coin of the realm; requirements not seen as relevant to today’s fight were simply not competitive in the battle for resources.

In 2005, the Office of the Secretary of Defense Comptroller approved an Air Force proposal to realign resources so that it could transform to a more lethal, agile,

⁷ Defense Science Board Permanent Task Force on Nuclear Weapons Surety, *Report on the Unauthorized Movement of Nuclear Weapons* (Washington, DC: Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, February 2008; rev. April 2008).

streamlined force with an increased emphasis on the warfighter. The resulting Program Budget Decision (PBD 720) led the Air Force to take manpower reductions (approximately 40,000 in end-strength over the Fiscal Year Defense Plan) and reap organizational and process efficiencies that would produce resources to fund recapitalization. The Air Force leadership chose to implement these reductions in a manner that produced severe cuts in manning nuclear forces and funding for the nuclear mission infrastructure. Today consequently, bomber and ICBM forces suffer from manpower shortages in numerous areas, there is inadequate equipment for training, and support and handling infrastructure require new funding for modernization and sustainability. In light of the complex demands of the nuclear mission, the reduction in budgetary resources has clearly been disproportionate.

Lack of Dedicated Nuclear Advocacy by Air Force Senior Leaders

When reorganized in the 1990s, the Air Force dispersed command authority and responsibility for the nuclear mission. This left no central advocate, undercut mission alignment with its primary customer, and blurred lines of authority. This Task Force found numerous examples of the Air Force's organizational shortcomings. The 2008 report prepared by Admiral Kirkland H. Donald blamed the deterioration in the ability of the ICBM engineering community to exercise technical authority on the lack of a "clear major command owner."⁸ It also noted that no fewer than four organizations were performing critical sustainment and acquisition management functions for nuclear and nuclear-related materiel. In addition, the Donald Report pointed out problems with the Air Staff's newly established Nuclear Operations, Plans, and Requirements Directorate, which was not assigned responsibility for or authorized to direct program execution. Program execution was managed by a matrix organization; as a result, the Director was unable to speak with authority on nuclear standards and requirements within the Air Force.

⁸ Admiral Kirkland H. Donald, "Report of the investigation into facts and circumstances surrounding the accountability for, and shipment of, sensitive military components to Taiwan." N00N/08-0051, May 22, 2008.

Personnel

The seniority level of individuals who are accountable within the enterprise and who concentrate day to day on nuclear deterrence has been reduced: general officers and members of the Senior Executive Service (SES) have been replaced with colonels and mid-level civilians. Since the early 1990s, the nuclear enterprise has lacked a four-star general responsible for overseeing and advocating for nuclear mission resources. Nearly two decades of atrophy have left the Air Force without a single proponent dedicated to the health of the entire nuclear mission capability and without a champion empowered to ensure that nuclear mission needs are served.

The Task Force observed a widely held perception among nuclear-experienced officers that they are disadvantaged in comparison to their nonnuclear peers in selection for promotion. This perception is evidently long-standing and was documented as early as 1998.⁹ We learned, as an example, that promotion rates between the years 2000 and 2007 for nuclear-experienced bomber navigators are 4 to 14 percent below Line Air Force (nonmedical and nonlegal professions) averages for majors, lieutenant colonels, and colonels and 1 to 14 percent below their nonnuclear counterparts. This clearly sends a signal to the officer corps that maintaining nuclear-trained officers has not been an Air Force priority.

Inspections

Historically, the inspection regime within the nuclear enterprise provided a constant reminder of the special attention and oversight required by the nuclear mission. The white-topped tanker, with the SAC Inspector General team aboard seen arriving to perform an unannounced inspection, symbolized the nuclear mission's culture of preparedness, proficiency, and adherence to the highest standards. But in the past decade, no-notice inspections have been almost entirely replaced by those carried out according to a published schedule; the result has been a cycle in which each unit rigorously prepares for an inspection, stands down for an extended period, prepares for another inspection, and so on.

⁹ "Institutional Support to Air Force Nuclear Units," Report of the AF/XON Air Staff Steering Group Field Team to the Air Force Vice Chief of Staff, Vol. I, July 1998, pp. 2-2-2-3.

Over time, the inspection program moved away from assessing a capability from beginning to end. Instead, the inspection process has been sliced into pieces, some with advance notice, and others only quasi-no-notice. As a result, leaders cannot confidently judge a unit's real ability to perform the nuclear mission in its various postures: deterrence, survival, and execution.

Summary

Since the end of the Cold War, the Air Force's level and intensity of concentration on its nuclear mission have declined conspicuously. The downsizing of the nuclear enterprise, coupled with organizational changes in the Air Force and elsewhere in DoD, made the concerns of the nuclear forces less pressing and seemed no longer to demand the continuous involvement of senior leaders.¹⁰ There was diminished appreciation of the merit and value of the deterrence mission as emphasis shifted toward conventional warfighting. (See Appendix C for observations by the Task Force members on their visits to various Air Force commands.)

This decline took place gradually as changes were made to organizations, personnel, policies, procedures, and processes. Many of these changes were done as independent actions and seemed unremarkable at the time. The overall impact on the nuclear mission, however, has been more pronounced than realized and is too extreme to be acceptable. Over the past 15 years, reports from a wide range of authoritative sources (including the Air Force itself) have provided definitive information on the impact of devaluing the nuclear mission.¹¹ They express a common concern that over this period the tendency within the Air Force to give short shrift to the nuclear deterrence mission grew steadily. Until the Minot-Barksdale and Taiwan incidents revealed the magnitude of the problem, little attention at senior levels in DoD was paid to determining what effective actions should be taken to reverse this trend.

¹⁰ Robert G. Joseph, Ronald F. Lehman, et al., *U.S. Nuclear Policy in the 21st Century: A Fresh Look at National Strategy and Requirements* (Washington, DC: GPO, 1998), Ch. 1, p. 26.

¹¹ Defense Science Board, April 2008.

Section 4. Leadership and Culture

An essential part of leadership is inspiring people to believe they are doing important work and are valued for it. It is essential that leaders restore discipline and pride among the Airmen who perform the Air Force's nuclear mission. A question has been raised whether SAC should be re-created. No. However, it is essential that the necessary elements of the mission be drawn again in a coherent whole—and the esprit de corps for those who serve the nuclear mission be resuscitated.

Senior leaders cannot simply adjust the dials on a few input variables to produce a controlled systemic change resulting in a desired cultural outcome. Organizational change may be necessary to create the conditions for cultural change, but it is up to senior leaders to follow through to effect change and ensure it endures.

Leadership

The nature of the leadership failure that occurred with the Air Force nuclear mission was two-fold. First, in the years following the end of the Cold War, senior Air Force leaders devalued nuclear capabilities. Second, they failed to acknowledge and did not anticipate the full consequences of their decisions, especially in the air-breathing leg of the nuclear triad. Although the size and variety of Air Force nuclear capabilities declined in accordance with national priorities, it was incumbent on the Air Force leadership to retain the enduring institutional underpinning that gives nuclear weapons their effectiveness as a deterrent. Senior Air Force leaders failed to adjust policies, shift priorities, or support key nuclear assets, thus contributing to the decline of the nuclear mission.

The Air Force leadership must recognize that the fundamentals of deterrence have not changed: effective deterrence will continue to depend on both real capabilities and the perception of a national will to respond to aggression. Although nuclear weapons play a less central and visible role in U.S. national security strategy than in the past, they continue to make an indispensable contribution to the security of the United States and its allies. As long as the Nation requires a nuclear deterrent capability, senior Air Force

leaders have the responsibility to ensure the safety, security, and reliability of these weapons and their associated support systems. With stewardship of more than 60 percent of the nation's operational nuclear weapons, they must continually champion the efficacy of nuclear-capable weapon systems in deterrence. They must also ensure that the nuclear culture is developed as a prime component of the Nation's enduring deterrent responsibility.

Air Force leaders failed to recognize the full impact of budget decisions and lack of attention that led to the Minot-Barksdale and Taiwan incidents. Indeed, some officers continue to deny that systemic problems exist. They failed in their responsibilities as leaders to maintain robust stewardship over the nuclear weapons. One Air Force commander told us he was distressed to learn of these recent incidents and the disregard of technical orders. Similarly, another said it was a "shock" to learn, as Admiral Donald found, that people were not following and complying with technical orders. Such areas are regularly examined by these commanders' staffs, subordinate commanders, inspectors general (IGs), and other assessments—thus their surprise is itself surprising. Another four-star commander involved in the nuclear area insisted that his command had a daily compliance culture. In light of the experience in other parts of the Air Force, the Task Force viewed such confidence with skepticism.

The Task Force concurs with the conclusion of investigators of the Minot-Barksdale weapons-transfer incident: "In fact, this incident was caused by a breakdown in training, discipline, supervision, and leadership."¹² We believe that the Minot-Barksdale and Taiwan incidents were symptomatic of a broader leadership and cultural problem in the Air Force. Our conclusion was reinforced by the fact that no Air Force leader chose to brief the Task Force—not even in private during our visit—on a recent incident involving the mishandling of ICBM code components. We learned of this incident only after it was reported in the press. This is yet another symptom of weak leadership.

¹² Major General Douglas L. Raaberg, "Commander Directed Report of Investigation," August 30, 2007, p. 15.

The Air Force recognizes it must change its approach to doing the right things and doing things right. The new Air Force Chief of Staff, General Norton A. Schwartz, has adopted a perspective in which the nuclear mission is a top priority. He has declared his intention to reemphasize a compliance culture in key disciplines, including nuclear, as he leads the reinvigoration of the nuclear enterprise. It will take time and unremitting attention to do this. And he must have the unwavering support of other senior Air Force leaders in steering a reorganized Air Force in the new direction. We have met with them and conclude that the Chief has their attention. This change in emphasis underscores the need for all Air Force leaders to understand and articulate the importance of the nuclear mission. They face an extraordinary challenge as they move to recapture top-to-bottom excellence in this field.

The Task Force recommends that the Secretary of Defense require the Air Force to provide recurring reports on the Service's progress towards improving nuclear weapons management based on this report and the Air Force Nuclear Road Map.

Culture

Organizational culture is the behavior, values, and beliefs of the institution. Understanding these interactions can be difficult, which is why culture cannot change overnight.

The existing Air Force cultural attributes were forged by the 20th century champions of air power who advocated the unlimited potential of military capabilities not constrained to the surface of the earth: "The Air Force . . . sees itself as the embodiment of an idea, a concept of warfare . . . sustained by modern technology."¹³ This fundamental article of faith was at the core of the creation of the Air Force as an independent service and persists today as the tacit parameter of the Air Force's professional jurisdiction and its contribution to joint operations. The present Air Force vision and strategy are to continue its legacy of exploiting technology to dominate air, space, and cyberspace. While there are synergies to be gained through "cross-domain dominance," Air Force

¹³ Carl H. Builder, *The Army in the Strategic Planning Process: Who Shall Bell the Cat?* The RAND Corporation, R-3513-A, Santa Monica, CA, April 1987, p. 47.

senior leaders must guard against neglecting nuclear contributions as they embrace expanding Air Force mission areas.

An organization as large as the U.S. Air Force does not comprise a single culture. The bomber subculture ran the Air Force from its institutional beginnings after World War II until the mid 1980s. “Led by Generals LeMay and Power, the absolutists remained convinced of the efficacy of manned strategic bombers . . . believed they could win a nuclear war and deter or control smaller wars.”¹⁴ By 1982, with the rise of the fighter generals, the Air Force created “a continuous string of generals with fighter backgrounds as chiefs of staff.”¹⁵ The accompanying shift in culture contributed to the devaluation of nuclear capabilities.

It will take more than rhetoric to restore top-to-bottom excellence in the nuclear mission. The selection of General Schwartz, a career mobility and special operations officer, as the new Air Force Chief of Staff provides a distinct opportunity to effect cultural change through leadership not rooted in either the bomber or fighter subcultures. We believe this new leadership, combined with substantial organizational changes, creates a new dynamic of influences that can change how the Air Force values and conducts its nuclear responsibilities.

What senior leaders pay attention to, measure, control, and reward will have far greater impact on the culture than what they say. Their daily actions must reflect the Air Force's stated priorities for nuclear deterrence in how they develop Airmen—through recruitment, selection, training, education, assignment, and promotion—and in how they manage resources—by setting the right priorities and supporting key nuclear initiatives.

Critical Self-Assessment

The ethos of self-assessment is often assumed to be an integral element of the military profession. However, it does not happen by accident. Historically, the Air Force has been characterized by methodical and rigorously developed operating guidance, a robust military exercise program, and an end-to-end inspection regime that emphasized

¹⁴ Mike Worden, *Rise of the Fighter Generals: The Problems of Air Force Leadership, 1945-1982*, Maxwell Air Force Base, AL: Air University Press, March 1998, p. 236.

¹⁵ Ibid, p. x.

the special nature of the nuclear mission. These elements existed as means to codify and perpetuate a culture of exacting standards ensuring that Air Force stewardship of these critical instruments of national power remained above reproach.

The Task Force concurs with Admiral Donald's conclusion that the Air Force now lacks a culture that is internally driven to address systemic weaknesses. We also conclude that the lack of an effective self-assessment culture goes beyond the ICBM community identified by Admiral Donald's investigation. In our visits to the field, we found widespread and consistent skepticism that Air Force priorities will match current rhetoric concerning the importance of the nuclear mission. Senior Air Force leaders and their successors must be involved in assessing the underlying systemic causes of deficiencies and developing a continual process of self-correction.

Procedural Guidance

The Task Force found that the operating guidance development process lacks the necessary rigor and system-wide authority to ensure that adequate procedures are fully coordinated and documented prior to implementation in the field. Personnel within the nuclear enterprise continue to struggle with a lack of coordination among multiple staffs, rapidly changing requirements, and conflicting directives. In many cases, functional managers are one-deep, lack expertise, and have failed to update or have delayed publishing critical instructions. This has forced unit personnel to rely on outdated, inaccurate, or ambiguous guidance. For example, the AFSPC instruction governing space and missile operations training programs was "in coordination" for well over a year due to disagreements between 14th Air Force and HQ AFSPC concerning proficiency standards for space system operators. Alternatively, functional managers opt to promulgate piecemeal "guidance and clarification" messages intended to amplify, clarify or modify documented procedures contained in fielded publications rather than revise and republish these outdated publications. In the case of missile units, 20th Air Force has elected to issue over 100 pages of "clarification" to account for ambiguities in existing procedural guidance. This process demands additional leadership involvement, resources, and discipline.

The overly complex and cumbersome nature of these procedures calls into question the level and degree of coordination among subject matter experts (SMEs) from across the functional specialties involved with the nuclear mission. The ability to instantaneously transmit clarifying guidance via computer networks has introduced a degree of turbulence into what was once a well-regimented and deliberate process. Today's environment places increasing value on speed and convenience at the expense of a thorough development and documentation process. In short, taking the path of least resistance has left nuclear units with the burden of sorting out too many issues in the field. Different from the Cold War era, when complexity was in the planning and—by design—simplicity was in the execution, today the complexity lies in the way execution guidance is communicated. Far too many clarification messages are generated by higher headquarters, indicating the flawed nature and insufficiency of the original guidance provided to subordinate units regarding the execution of nuclear operations.

These procedural issues are compounded by the fact that the major command (MAJCOM) IGs are not adequately integrated into the procedure development process. These inspection team members have become detached from their functional SME counterparts on the MAJCOM staffs. This has led to an environment in which procedures are developed by functional experts without the benefit of IG inputs based on field observations. This absence of coordination places IG inspectors at a disadvantage as they must routinely interpret functional manager intent during assessments. The end result is a system in which the procedures are less than adequate due to lack of feedback, and inspectors' varying interpretations of them lead to inconsistent application of standards.

The Task Force believes the Air Force must undertake a thorough review of all nuclear-related Air Force instructions, policies, and documentation to ensure that these publications are consistent, current, accurate, and sufficient to support field operations. This review should include an analysis of past failures in the guidance development process. Additionally, the Air Force should establish an agile and fully resourced system for managing interim changes and clarification messages for nuclear-related procedures and publications. Finally, all MAJCOM commanders should promulgate policy requiring

inspector general involvement in the process of developing operational and procedural guidance.

Nuclear Exercises

The Air Force nuclear capability is, in fact, a force-in-being that achieves its goals by not being employed in war. As John Milton once wisely observed, “They also serve who only stand and wait.” But the long uneventful periods of successful deterrence can have a corrosive effect on vigilance, responsiveness, and currency in the absence of unflagging motivation by leaders and frequent nuclear exercises. There are two major, interrelated purposes for exercising nuclear forces: deterrence and proficiency. Exercises provide a visible demonstration of capability and proficiency in mission execution to motivate restraint by potential adversaries.

The nuclear mission exercise programs have been characterized by infrequency, low levels of unit participation (i.e., significant numbers of unit waivers due to high conventional operations tempo), and limited scope. No large-scale, end-to-end exercise of the nuclear capability has been accomplished since 1995 when BULWARK BRONZE was conducted. Dual-capable bomber and fighter units have—for a number of good reasons—concentrated their training and exercise resources on winning today’s conventional and regionally focused fight. This understandable focus has the effect of minimizing opportunities for units to exercise the nuclear mission. Owing to the infrequency of these exercises, units tend to focus on mastering procedures and tasks rather than developing operational proficiency.

The Task Force recommends that the Air Force establish a policy governing frequency and minimum acceptable levels of participation and designate a central waiver authority for nuclear exercises. Furthermore, the Service should develop a formal, multi-year nuclear exercise plan that includes both USSTRATCOM exercises as well as MAJCOM and NAF-level exercises.

Nuclear Inspections and Staff Assistance Visits

The purpose of an inspection regime is to assess and validate the readiness of a unit to perform its assigned mission. Over the past 10 years, inspection pass rates point to

anomalies that indicate a systemic problem in the inspection regime. (See Figure 1.)
Something is clearly wrong.

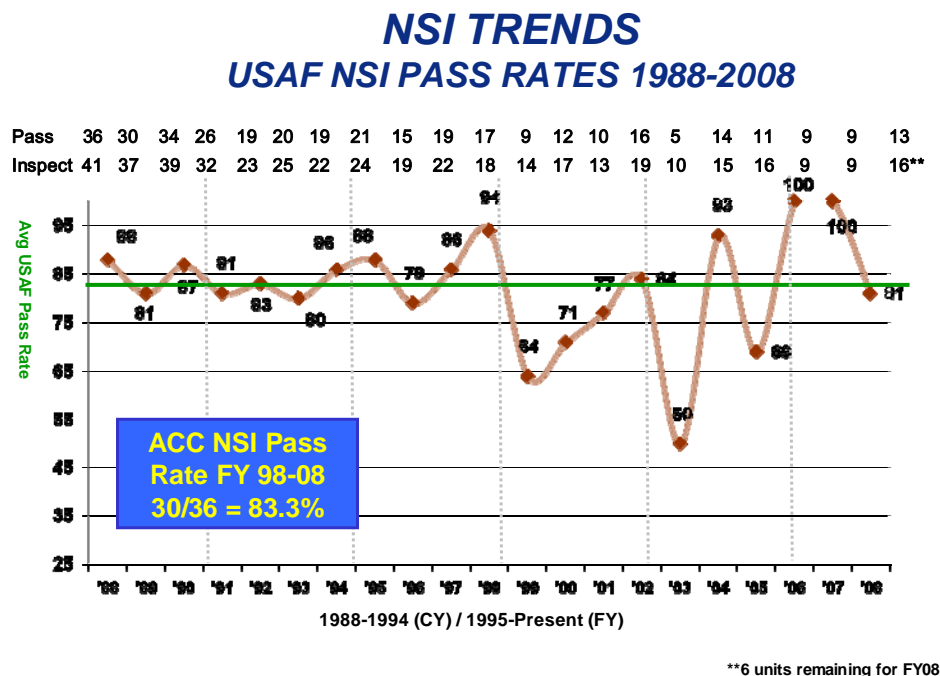


Figure 1: NSI Pass Rate Trends¹⁶

There are several types of inspection activities associated with the nuclear mission: Nuclear Surety Inspections (NSIs) and Nuclear Operational Readiness Inspections (NORIs). The NSI evaluates a unit's compliance with nuclear surety requirements and are mandated to be conducted at an interval not to exceed 18 months. In contrast, the periodicity requirement for NORIs, which evaluate a unit's readiness for the operational mission, is no less than once every five years.¹⁷ The potential extended period between evaluations is inadequate to ensure the necessary rigor and proficiency and fails to engage senior leadership in the nuclear mission. The five-year periodicity requirement makes it possible for an individual assigned to a nuclear unit to complete an assignment without ever having experienced a NORI. The infrequent interval also allows skills to atrophy and contributes to an "exercise mentality" (training for the test) as opposed to the spontaneous realism of frequent unannounced inspection visits. The Task Force

¹⁶ ACC Inspector General, July 21, 2008.

¹⁷ According to the minimum interval established in AFI90-201 (Nov. 2004).

recommends that NORIs should occur at intervals of 36 months or less and to consider combining NORIs with NSIs on occasion.

Even so-called “no-notice” inspections do not begin until 72 hours after the unit is notified. In contrast, during the Cold War, SAC conducted inspections with less than an hour’s warning and typically combined nuclear surety, operational readiness, and unit effectiveness components in a single inspection period. Some in the Air Force assert that little can be done to prepare for an inspection in 72 hours. But a nuclear crisis may not give us even that much warning. We believe that such advanced notice undermines the necessary mindset of constant preparedness and attendant sense of urgency. Additionally, today’s nuclear inspection regime assesses only segments of nuclear capability rather than providing a comprehensive, end-to-end review of unit capability. Lack of a system-wide picture makes it difficult to detect long-term trends.

The Air Force does not centrally manage its inspection program; each MAJCOM conducts its own inspections and assessments with oversight provided by the Inspector General and the Air Force Inspection Agency (AFIA). During numerous Limited Nuclear Surety Inspections conducted in the wake of the Minot-Barksdale weapons-transfer incident, AFIA noted the lack of a standardized approach to root cause analysis in determining responsibility for deficiencies. Inspectors’ lack of expertise has contributed to the diverse application of standards.

Air Force inspection teams tend to lack the organic wherewithal to conduct effective nuclear inspection activities. MAJCOM inspection teams are not resourced with the appropriate levels of nuclear expertise and rely heavily on augmentees with nuclear experience from other organizations (e.g., Numbered Air Forces). The average nuclear job experience across all IGs declined from 8.5 years in 2003 to 4.9 years in 2007. Augmentation of a typical MAJCOM inspection team can run as high as 50 percent from other sources. The Minot-Barksdale weapons-transfer incident highlighted the need to provide guidance on unit decertification and recertification, and the Air Force is developing a new instruction to govern this process.

As a further indicator of the problematic state of affairs of the Air Force nuclear assessment and compliance community, the Staff Assistance Visit (SAV) program¹⁸ is underused, underresourced, and in need of guidance. The various SAV programs throughout the Air Force suffer from a perception that higher headquarters staff assistance visits are just another graded inspection activity. Headquarters staffs are poorly resourced and often lack the requisite subject matter expertise to offer assistance to the operational units. One squadron commander recalled a SAV team leader asking him about the readiness of his unit for a NORI rather than providing a frank assessment of his unit's preparedness. The SAV program should be a critical tool for commanders to utilize in assessing and improving unit compliance and readiness; and it should provide a vehicle for coaching and mentoring unit-level personnel. An effective SAV program is necessary to contribute to a culture of critical self-assessment and an essential element of accountability.

To correct many of the assessment deficiencies identified by the DSB and Donald reports, the IG issued a new Technical Order in February 2008 and other new guidance in July 2008 that seek to implement immediate changes to inspection procedures. The Air Force also expects to complete several Nuclear Surety Process reviews involving the Joint Staff, the Defense Threat Reduction Agency (DTRA), Headquarters Air Force, and the MAJCOMS in 2009. The IG has proposed a centralized process for nuclear certification and decertification authority. Under this proposal, AFIA would lead a new inspector training and qualification program and would also man a centrally controlled NSI team charged with implementing a standardized inspection approach, providing uniform training and certification to all inspectors and building a highly experienced and credible inspection team.

The Task Force believes the Air Force Inspector General should spearhead the overhaul and standardization of the nuclear inspection process across the Air Force. This policy should include zero-notice inspection events for each unit that include nuclear surety, nuclear operations, and unit effectiveness. In addition, the Air Force should

¹⁸ SAV is a nongraded review of a unit's procedures and program management activities. SAVs are normally conducted by functional experts from higher headquarters.

establish guidance for the conduct of Staff Assistance Visits and ensure that the program is appropriately resourced and staffed with expert personnel.

Resources and Manpower

In the calculus of competing demands for resources, and in the face of 15-plus years of continuous combat operations, Air Force nuclear capabilities have suffered from “a thousand small cuts,” often in the name of efficiency. The closure of the Weapons Storage Area (WSA) at one of the bomber bases was a significant mistake with a negative operational impact. First, it simplifies enemy targeting and creates more concentration of vulnerability for the B-52 bomber force. It also creates the requirement for bombers to train and exercise far from their home station, resulting in additional time lags and operational complications. Nuclear munitions training and proficiency are severely impacted owing to the inability of training weapons to simulate the correct arming sequence. Only from a global nuclear deterrence perspective do the ramifications of this “efficiency” become clear. The Task Force strongly encourages the Air Force to revisit the WSA closure decision. The results of that decision should not prevent the Air Force from making the investment in realistic training munitions.

Decisions surrounding B-52 air-launched cruise missiles (ALCMs) are another example of the devaluation of the nuclear mission. ALCMs provide the B-52 with a stand-off capability allowing the bomber to deliver nuclear weapons without having to penetrate the air defenses of a potential adversary. Cruise missiles are characterized by their ability to penetrate contested or denied airspace while simultaneously complicating an adversary's defensive planning. The Task Force understands that no follow-on standoff capability is planned to replace the aging inventory of ALCMs. If the B-52's nuclear standoff capability is allowed to disappear, then the ability to signal strategic capability through the generation and dispersal of B-52s will be compromised, leaving only a small, less visible force of B-2s to broadcast U.S. strength and intent.

Another consequence of resource cuts was the reduction of staff personnel for the NAFs. The MAJCOMs and NAFs have specific and distinct roles with the goal of concentrating the NAF on purely operational issues while the MAJCOM handles nonoperational matters. In practice, however, even with an issue related to operations, a

wing will often “skip” the NAF staff and communicate directly with the MAJCOM staff. While the spirit and intent of this concept was to gain efficiency, this “skip echelon” arrangement can have deleterious effects. During discussions with Air Force commanders, the Task Force discovered an unintended consequence of this arrangement: it has undermined the NAF leadership’s sense of responsibility and accountability for its subordinate units. They perceived their authority for policy and procedures had been “skipped.” Wing and squadron elements went directly to MAJCOMs for some matters within the NAF’s purview since subordinates believed the NAF was not staffed to perform these functions. The Air Force must staff organizations appropriately, especially the NAFs, to ensure sufficient levels of expertise and a full sense of command accountability.

The Air Force is studying the resources necessary to implement the findings and recommendations of the various assessments. The earliest fixes are being applied to strengthen the nuclear supply chain processes, plus safety, security, and storage deficiencies. Based on the information provided to the Task Force as of July 2008, we noted that several key requirements are unfunded and others are deferred to FY12. We recognize that the funding can be changed during the budget process in conjunction with the Office of the Secretary of Defense, and therefore urge the Air Force to provide adequate funding for the full range of initiatives required to upgrade and revitalize the nuclear mission.

The FY2010 Program submission attempts to reverse the drawdown of B-52s by adding another bomber squadron. The additional squadron will facilitate the transition to the proposed “Global Deterrence Force” (GDF) concept. However, Task Force members have concerns that these changes do not fully address the numbers of bombers available for training and test purposes, which may divert combat-coded aircraft for these purposes. (See Appendix D.)

Under the GDF rotation plan, at any given time one of the four squadrons will be solely dedicated to the deterrence mission. During that period, the designated squadron should be resourced at higher levels in accordance with the criticality of its mission. Associated GDF personnel should also be considered as “deployed in place” for

deployment tracking purposes. The GDF concept will require that the units be resourced, manned, and supported at levels equivalent to deployed forces. The current plan calls for the GDF to mirror the Air Expeditionary Force (AEF) rotation scheme wherein each squadron is programmed over the course of 16 months to deploy for one 4-month conventional AEF period and one 4-month segment in support of the nuclear mission. The GDF units would engage in a two-month specialized work-up prior to such deployments. Navy and Army rotations are based on a 12-month cycle to allow for effective “re-set” as well as additional and better training between deployments. The Task Force recommends the Air Force move to a 12-month rotation for each unit assigned to the GDF.

Manpower

Based on inputs from the field, the Task Force has concluded that insufficient manning has been provided to nuclear commanders to execute their missions. Manpower authorizations supporting the nuclear mission have decreased below long-term sustainable levels. As an example, an Air Force munitions flight once had 94 manpower authorizations for nuclear weapons maintenance personnel. The authorizations were reduced to 33 because of a weapon system retirement and personnel reductions. However, a recent capabilities-based manpower study by the Air Force Manpower Agency concluded that these reductions had removed too many manpower authorizations.

ICBM maintenance technician manning numbers were established decades ago. Currently, however, there is no formalized manpower standard or objective method to determine the correct manning levels required. This lack of a standard makes it exceedingly difficult to analyze impacts of manpower reductions that have occurred over the last 15 years. To their credit, the Air Force leadership has recognized this deficiency and has taken the initiative to develop a long-term solution. The ICBM maintenance enlisted community is in the process of conducting a capabilities-based study to codify weapon system manpower requirements. This effort began in late 2006 and is scheduled to be completed during FY09.

Unit Manning Documents (UMDs) are not universally coded to identify key nuclear billets for those positions deemed critical for a unit to conduct its nuclear missions. The lack of understanding as to which manpower authorizations are vital to the nuclear mission has resulted in the deployment of key nuclear personnel elsewhere and an inability to determine which critical billets require special management. For example, the removal of all personnel specialists from squadron-level organizations has imposed a significant administrative burden on unit commanders. The workload once shouldered by dedicated personnel assigned to each unit must now be accomplished by squadron leadership and competes with the nuclear mission for attention, adding additional risk.

End-strength drawdowns and the application of a “fair share methodology” to distribute personnel shortages merit an assessment of wing and NAF-level UMDs supporting the nuclear mission. This review must include assessing both manning and skill mixes—“right sizing”—to ensure each unit’s manpower authorizations are appropriate to execute its missions. Manpower standards and UMD authorizations must also include key support functions such as those required to administer the critical Personal Reliability Program (PRP) properly. Before analyzing these UMDs, however, the Air Force must confirm that its manpower standards for nuclear-capable forces are sufficient and produce objective results. The ultimate goal is to determine the optimum number of Airmen needed to accomplish the mission. The Air Force owes its commanders sufficient and effective manning—accountability in the absence of appropriate resourcing undermines success.

Personnel Management and Development

Air Force leadership needs to develop a more effective approach to personnel management for manning critical nuclear positions. There are no longer sufficient numbers of nuclear-experienced personnel to fill them. Moreover, severe shortages were noted for maintenance and security personnel. One bomber wing commander stated that his wing was “not mission capable” in the maintenance function and could not get relief even after repeated attempts to resolve the issue. This personnel deficit has caused the wing to fall short of its annual training sortie requirement by 20 percent. A missile wing commander reported that he was critically lacking key maintenance leaders, and there

didn't seem to be any relief in sight. These shortages are exacerbated by Air Force policies on deployment.

Current Air Force policy motivates Airmen to volunteer for deployment overseas to supplement combat support personnel through recognition in promotion packets. Under current policy, Airmen can be deployed and then reassigned following the deployment without full consideration of the mission impact at their home station. Once an Airman is deployed, his or her unit continues to show the position as "filled" in manning reports, which misleadingly inflates readiness levels. One commander told us that this policy creates, in effect, a "tax" on his manning. Another told us the problem is particularly acute in the security forces. The net effects of these deployments are to distract attention from the nuclear mission and reduce capability to fulfill the Air Force's deterrence mandate. Nondeployed nuclear mission positions do not receive the same level of recognition during the promotion process. The Task Force believes there is an urgent need to reform deployment criteria in such a manner that personnel assigned to key nuclear billets are considered as "deployed in place," thereby making them ineligible for contingency deployments. Further, unit commanders should have the opportunity to reclaim voluntary deployment requests.

In recent years, the Air Force has made an individual's deployment history visible to promotion boards by creating a field for contingency deployments in promotion folders. The intent of including this information in promotion records was to emphasize the expeditionary nature of Air Force operations and encourage full participation in contingency deployments by Air Force personnel. However, the unintended consequence of this action was the creation of a perception that overseas deployments in support of contingency operations made one more competitive for promotion. Personnel performing key nuclear duties in nondeployed locations are actively encouraged by Air Force leaders to seek deployment opportunities in order to increase their "value" to the Air Force and "set themselves apart" from their nondeployed peers. This perception has further contributed to the devaluation of both the nuclear mission and those responsible for its execution.

Therefore, the Task Force recommends that the Secretary of the Air Force include specific guidance to successive promotion and special selection boards emphasizing the need to promote and develop sufficient numbers of highly experienced nuclear personnel to fill critical nuclear positions. The Task Force believes this will have the effect of revitalizing the importance of the nuclear mission and reversing the perception that a nuclear-focused career provides limited opportunities for professional development and promotion to the senior ranks of the Air Force.

Intelligence officers are no longer assigned to Air Force missile wings. While there are informal agreements for intelligence support from external organizations, in practice it does not materialize. Rarely do unit personnel receive current intelligence relative to their nuclear mission. This undermines an operational mindset and contributes to the devaluation of the mission. The Task Force recommends that the Air Force authorize and assign intelligence officers to each of the three missile wings and to the 20th Air Force. Additionally, the Air Force must routinely provide strategic intelligence information and analysis to bomber and missile squadrons in response to unit commander priority information requests and as required to orient unit personnel on the threats and capabilities posed by potential adversaries.

In its effort to manage a limited number of personnel with nuclear experience, the Air Force is beginning to implement a nuclear-experience tracking system. The current system is merely a binary indicator that provides no information on type, level, depth, or currency of nuclear experience. Improving this system will enable the Air Force to fill nuclear-critical billets with appropriately experienced personnel. Additionally, the Task Force recommends that the Air Force identify those positions requiring extensive previous nuclear experience. Some of these positions should be designated as “must fill,” especially at the wing levels but also on key functional staffs and critical nuclear-related positions outside the Air Force.

Current management of nuclear-related career fields is not adequate without a complementary program to support the development of people within the nuclear community. Training and professional education are the key tools for generating a culture of nuclear excellence and awareness. Yet after the Cold War ended, training in nuclear

operations—for example, the Strategic Weapons School—was streamlined to the point of elimination. While some of these deficiencies have recently been addressed, our review of the curricula of resident and nonresident professional military education (PME) for officers and enlisted personnel turns up only a very small number of nuclear-related topics. While many of the courses make it possible to pursue these areas in electives and specialized research, nuclear-related topics are clearly not central to the Air Force's PME program.

The Task Force endorses the Air Force training initiatives now underway for Weapons School courses and the Nuclear Weapons Management Fundamentals Course at the Nuclear Weapons Center. We agree that satisfactory completion of these courses should be mandatory for the personnel in the applicable career fields and, in some cases, as prerequisites for certification and command. These courses aim mostly at the technical, tactical, and operational levels and need more depth on overall strategic deterrence theory.

The Air Force should also conduct a curriculum review of its intermediate and senior service colleges with a view to asserting a leadership role in the Joint Professional Military Education community. The current three-hour course titled “Coercion, Deterrence, and Strategy” at the year-long School of Advanced Air and Space Studies reaches only a very small number of the Air Force's top talent. However, this course may be a good starting point for developing a more concentrated field of study that should be made available more broadly within the Air Force. The review should examine the offerings of other professional military and civilian academic institutions, other agencies such as DTRA, the National Nuclear Security Administration (NNSA), and Federally Funded Research and Development Centers (FFRDC), as well as the educational approaches employed by allies for nuclear policy.

As another tool for professional development, the Task Force strongly encourages the Air Force to integrate nuclear weapons and deterrence theory in Service wargames. While some wargame series (e.g., Unified Engagement and Futures) serve as events that support “buy-in” for already decided priorities, we recommend the Air Force conduct more numerous, smaller-scale “seminar” wargames aimed at shaping internal attitudes on

nuclear weapons and as a means for transmitting cultural norms. By including nuclear and deterrence operations in wargames, current and future generations of Air Force leaders will have the opportunity to experience the complexities presented by these weapons as well as their role in deterring future conflict.

The Air Force's weapons employment schools have been consolidated and now reside in the USAF Weapons School located at Nellis AFB whose motto is "Home of the Fighter Pilot." Those who graduate from the Weapons School are given unique authority, by virtue of their positions and training, to influence culture in all operational units. The Task Force recommends that the Air Force establish a new school for nuclear operations. The new school should focus on professional excellence in the nuclear deterrence mission and include ICBM, nuclear-capable bombers and fighters, intelligence, and maintenance. Dual-capable squadrons should have a balance of aviators attend each school. A nuclear operations school should be developed to meet or exceed the Weapons School's reputation for academic rigor, operational superiority, as well as tactical and technical proficiency. The two schools should be complementary in nature, supporting each others' training, but focused on their respective separate mission specialties—nuclear deterrence and operations, and conventional operations.

The shortfalls discussed above demonstrate the decline of nuclear expertise and culture. The Task Force believes that the Air Force would further benefit from a senior mentor program to utilize the expertise and perspectives resident in the retired ranks. We note the Air Force plan to expand the senior mentor program with respect to the nuclear arena. However, a more robust program is necessary.

The U.S. Joint Forces Command (USJFCOM) Senior Mentor program provides a core roster of over a dozen retired general and flag officers and senior civilians with extensive operational experience to provide instruction and mentorship during Pinnacle, Capstone, and Keystone courses. They also form teams to provide mission-rehearsal expertise to Joint Task Forces in preparation for operations. This kind of over-the-shoulder assistance would not only help train current Air Force leaders in the special character of nuclear campaigns, it will also nurture the rising cohort of senior Air Force

leaders in the art of integrating operations across service and functional cultural boundaries.

Recommendations

1. The Secretary of Defense should direct the Air Force to provide periodic reports on the Service's progress towards improving nuclear weapons management.
2. The Vice Chief of Staff of the Air Force should undertake a thorough review of all nuclear-related Air Force instructions, policies, and documentation to ensure these publications are consistent, current, accurate, and sufficient to support field operations. Additionally, the Air Force should establish an agile and fully resourced system for managing interim changes and clarification messages for nuclear-related procedures and publications. This review should be completed by September 2009.
3. MAJCOM commanders should promulgate policy requiring inspector general involvement in the process of developing operational and procedural guidance for nuclear-related inspections. This should be completed by December 2008.
4. The Deputy Chief of Staff of the Air Force for Operations and Requirements (A3/5) should establish a policy for frequency, minimum acceptable levels of participation, and designate a central waiver authority for nuclear exercises. All requirements and planning should be promulgated by September 2009.
5. The Air Force Inspector General should spearhead the overhaul and standardization of the nuclear inspection process across the Air Force. NORIs should occur at intervals of 36 months or less. This review and policy implementation should be in place by the end of March 2009.
6. CSAF should establish guidance for the conduct of Staff Assist Visits (SAVs) and ensure the program is appropriately resourced and staffed with expert personnel. All program elements, policy, and resources should be in place by September 2010.
7. SECAF should provide the resources necessary for the initiatives required to upgrade and revitalize the nuclear mission. This should include all resources necessary to support the implementation of the Global Deterrent Force (GDF) concept for B-52s. This should begin immediately in order to influence FY10 budget decisions. The Secretary of Defense should include this in the review recommended in this section. (See recommendation 1.)
8. The Air Force should move to a 12-month rotation for each unit assigned to the GDF.
9. The Deputy Chief of Staff of the Air Force for Manpower and Personnel (AF/A1) should define nuclear-critical billets and identify critical nuclear positions as "must fill" on Unit Manning Documents. This should be completed by October 2009.

10. The Deputy Chief of Staff of the Air Force for Manpower and Personnel (AF/A1), in conjunction with Career Field Managers, should assess manpower standards for all career fields supporting the nuclear mission by October 2009.
11. The Deputy Chief of Staff of the Air Force for Manpower and Personnel (AF/A1) should designate personnel assigned to key nuclear billets as deployed in place to receive credit commensurate with deployment during promotion boards. This should be completed no later than October 2009.
12. The Deputy Chief of Staff of the Air Force for Manpower and Personnel (AF/A1) should ensure nuclear unit commanders have the ability to reclaim voluntary deployment requests by unit personnel. This should be completed no later than October 2009.
13. SECAF should include guidance to successive promotion and special selection boards emphasizing the need to promote and develop sufficient numbers of highly experienced nuclear personnel to fill critical nuclear positions. A plan for providing this guidance should be in place no later than December 2008.
14. The Deputy Chief of Staff of the Air Force for Manpower and Personnel (AF/A1) should authorize and assign intelligence officers to each of the three missile wings and to Headquarters, 20th Air Force. This should be completed by March 2010.
15. The Commander, Air Education and Training Command should conduct a curriculum review of all Air Force Professional Military Education and expand educational offerings on nuclear deterrence, strategy, and operational theory. The curriculum review should be completed no later than May 2009 with the new curriculum added to appropriate courses beginning with the 2009–2010 school year.
16. The Air Force should conduct more numerous, small-scale wargames aimed at shaping internal attitudes on nuclear weapons. This should be done by October 2010.
17. The Air Force should establish a school for nuclear operations focused on professional excellence in the nuclear deterrence mission. This should be done by October 2010.
18. CSAF should initiate a Senior Mentor Program for nuclear operations fashioned after the USJFCOM approach for Joint Task Force Operations. This should be completed no later than November 2008.

Section 5. Organization

Overview

The central problem the Task Force found is that no single command within the Air Force has operational ownership of the nuclear deterrence and nuclear global strike mission. Matrix management has fractured authority across multiple organizations. Nuclear deterrence forces are divided between two major commands, Air Force Space Command (AFSPC) and Air Combat Command (ACC). Readiness, performance, and inspection practices differ materially between the two major commands. The nuclear-capable bombers and conventional-only bombers are in two different numbered air forces.

In assessing this situation, the Task Force has formulated four attributes against which the Task Force's recommended organizational changes should be judged:

- **Mission alignment with the combatant commander:** Provide clear alignment of nuclear mission and global strike¹⁹ mission focus with the primary combatant commander, U.S. Strategic Command (USSTRATCOM) that it supports.
- **Focused advocacy:** Vest advocacy, resourcing, and support (organize, train, and equip functions) for nuclear-capable forces in a single major command, commanded by a four-star general officer.
- **Clear, unambiguous lines of authority:** Provide mission authority and clear accountability for the nuclear and global strike missions and functions at each level of the Air Force.
- **Appropriate manning and funding for mission readiness:** Provide adequate manpower authorizations, manning, and funding to underwrite nuclear mission expertise at the right levels and in the right disciplines.

¹⁹ For the Air Force, "global strike" means a capability to attack fleeting or emerging high-value targets anywhere on the globe through the employment of air, space, and information systems to create operational and strategic effects. See USAF "Global Strike CONOPS" white paper, December 2006.

Current Organizational Structure

The bomber fleet is capable of both nuclear and conventional operations. When the current bomber fleet was designed, the focus was on nuclear operations. The B-52, designed in the 1950s, was focused primarily on the nuclear mission but also included the capability of performing conventional operations. The B-1, designed in the 1970s, was focused on the nuclear role. However, its lack of participation in the 1991 Persian Gulf War stimulated a priority effort to refocus on conventional capabilities. Later in the decade, it was modified once again to nullify its nuclear mission capability and was consequently declared “conventional only” for treaty compliance purposes. The B-2 was designed in the 1980s primarily for nuclear applications, but it also has conventional capability.

The term “global strike” includes both nuclear and nonnuclear forces. In this report, it includes strategic nuclear missiles, dual-capable (conventional and nuclear) bombers, and conventional-only bombers.

Organizationally, for over four decades of the Cold War, strategic missile and bomber capabilities were concentrated in Strategic Air Command (SAC). These capabilities were integrated with necessary tanker and select intelligence, surveillance, and reconnaissance (ISR) support. Following the 1991 Persian Gulf War and the termination of the Cold War, the Air Force implemented significant organizational and force structure changes.

From a mission standpoint, the posture changed significantly. Strategic Air Command, a specified command, was disestablished. A new unified command, USSTRATCOM, was created. The role of global strike, both nuclear and nonnuclear, became a USSTRATCOM-assigned mission, including nuclear deterrence. Functionally, the bomber fleet discontinued its daily nuclear alert, while the strategic missile posture remained unchanged. Fleet sizes of both capabilities were reduced. The strategic missile fleet declined from 1,054 to 450. The combat-coded bomber fleet was reduced from over 300 to slightly over 150.

The assets of the disestablished SAC were redistributed among three major commands: the bombers were assigned to Air Combat Command, the strategic missiles to

Air Force Space Command (after one year in ACC), and the tanker fleet to Air Mobility Command. Ongoing joint military operations have demanded significant use of the bomber fleet in a conventional role.

Today, Air Combat Command is the single Air Force provider for presenting organized, trained, and equipped conventional attack forces and nuclear-capable forces through Joint Forces Command (JFCOM) to joint force commanders upon demand. The current organizational approach has emphasized support for conventional combat campaigns, predominantly in Iraq and Afghanistan, but also in other operations around the world over the past 15-plus years.

Regarding the commitment to provide organized, trained and equipped nuclear-capable bomber forces, there is general acknowledgment that there has been substantial decay in the vitality, readiness, and resourcing of this mission. The Air Force has announced a strong commitment to restore excellence to the nuclear deterrence mission. Some believe that this can be done best by adjusting existing organizational arrangements and resource advocacy processes, without undertaking fundamental or far-reaching organizational reforms.

In sum, the Air Force continues to believe that working within current organizational concepts, command assignments, and distribution of bomber forces is the best approach to fulfilling ongoing joint combatant commander requirements. However, as we shall see below, the Task Force believes that the present paradigm must be changed and that extensive reorganization will be necessary.

Assessment of the Current Organizational Approach

As documented earlier in this report, the capability of the bomber fleet to assume a nuclear deterrence posture and its readiness to conduct nuclear operations, if directed, has been seriously degraded and broadly neglected. Current Air Force organizational practices and readiness status do not satisfy the national security need for a bomber force that is credible, visible, and responsive to the nuclear deterrent role.

Consistent with the concept of form following function, an organization's effectiveness is enhanced by establishing an optimized structure appropriate to the

mission for which it exists. For example, SAC's organization followed its function—detering nuclear conflict—by providing a cohesive, fully resourced, and aligned organization focused on visible global deterrence. While the mission to deter nuclear conflict continues as a critical national security priority, the Air Force organizational form is not optimized to provide an integrated, visible, and credible nuclear deterrent.

Currently, AFSPC and ACC share responsibility to organize, train, and equip strategic nuclear-capable forces for joint employment. AFSPC focuses on global capabilities associated with Intercontinental Ballistic Missiles (ICBMs) and space operations. ACC has the responsibility for providing global strike forces to USSTRATCOM with dual-role (nuclear and conventional) B-2 and B-52 bombers and conventional-only B-1s. ACC is likewise responsible for providing in excess of a thousand conventional-only aircraft with various combat and combat support capabilities, including the entire bomber fleet, to regional joint commanders to support conventional operations through JFCOM. ACC is also responsible for providing assets to USSTRATCOM and regional joint force commanders to conduct select intelligence, surveillance, and reconnaissance missions.

ACC has been strained to support Combatant Command demands of the past decade and a half to provide conventional forces to support joint operations. One casualty has been the substantial decline of the former standard of excellence of the nuclear-capable bomber fleet and crews in readily and reliably performing all of the functions and tasks of visible nuclear deterrence (alert posture, dispersal operations, etc.) as well as the operational processes and procedures to conduct nuclear-rolled bomber operations.

The press of ongoing regional and expeditionary priorities has also taxed the resources of the nuclear-capable bomber forces, especially manpower authorizations and manning of the wings and the NAF. The headquarters of Commander, 8th Air Force is inadequately manned to manage its significant span of control. This headquarters is responsible for operational oversight and readiness of forces capable of global nuclear bomber operations, global conventional strategic strike, major Air Force ISR assets (e.g., the Airborne Warning and Control System and the Joint Surveillance and Target Attack Radar System), several intelligence organizations, and establishing the Provisional Air

Force Cyber Command. The breadth of these substantial responsibilities weighs heavily on the NAF Commander and his staff as they seek to devote proper attention, oversight, and expertise to this important array of assigned missions.

Similarly, ICBM personnel within AFSPC face challenges in the current Air Force nuclear structure. There is a large demand for entry-level officers to fill crew positions in the missile wings. However, the supervisory structure above the missile crew force is very lean. As a result, an officer completing a standard four-year tour as a missileer, while well steeped in ICBM nuclear operations, has limited intermediate rank opportunity in the missile career field.

The “fix” has been to transfer a very large number of missileers after their first launch control crew tour to the space operations specialty. More often than not, these former missileers stay on the space side as the space mission continues to expand. The result has been a fairly rich mix of middle grade officers in the space specialty but a correspondingly leaner pool of experienced missileers, especially in the field grade ranks. For the pure missileer, the impact is low promotion opportunity to senior ranks and lower opportunity for command when compared to officers who have experience in both missile and space operations. Missileers are well aware of the decline of attention devoted to the nuclear missile mission as well as the attending reduction in promotion opportunities.

Another challenge for both the nuclear-capable bomber force and the strategic missile force has been under-resourcing of the operational wing and NAF. The Task Force was told by one bomb wing commander that the wing's assigned crew chief manning was only at 67 percent of its authorized level—resulting in an inability to fly approximately 20 percent of the FY08 training sorties—limiting aircrew proficiency and severely impacting combat readiness.

The demand for personnel to fill billets to support operations in Iraq and Afghanistan is intense. The Air Force permits Airmen to volunteer for such duty directly through the Air Force Personnel Center (AFPC) without local approval or consultation with their supervisor. For example, as explained to the Task Force, an Airman can directly volunteer via internet message without a supervisor's knowledge or concurrence.

AFPC can assign the individual based on the volunteer statement, usually for a one-year tour—again, without the supervisor's or commander's knowledge or approval.

Unfortunately, AFPC provides no replacement for the volunteer until the volunteer's overseas tour is completed, often after 12 months. This practice leaves vacant the position in the providing unit, causing significant personnel and skill shortfalls, and undermining the roles of supervision and command.

Still another concern is the current unit manning document (UMD) of the missile wings. Strategic missile units are assigned or “chopped” on a daily basis to USSTRATCOM, the supported combatant command. In the same fashion as an Air Expeditionary Force, the missile force should be seen as “deployed,” i.e., ready and capable of immediate execution when directed. Unfortunately, over the past several years, the Air Force has elected to “lean out” these wings to meet other demanding commitments and to meet reduced end strength goals to a point that it now has adverse mission impact.

In the Task Force's view, many of these actions have harmed mission effectiveness, crew morale, and commitment. For example, security forces are routinely on extended work weeks plus telephone alert. Another adverse impact was the decision to withdraw intelligence officers from all missile wings. Missile launch crews sitting on alert every day need to understand and be kept current on the strategic situation that justifies the ready strategic missile force and the important deterrence role they represent. The effect of the decision to withdraw intelligence officers is similar to that of a private sector company that elects not to have a market research function, making it blind to conditions in the market segment in which it competes.

With regard to the nuclear-capable bomber force, we understand that the Air Force intends to implement the policy of dedicating one nuclear-capable bomber squadron to the nuclear mission for a one-year period on a rotational basis. The Task Force fully supports and concurs with this approach. The unit assigned to this task must be “right sized” in order to be ready to carry out the mission when directed. In a manner similar to the missile squadrons assigned to USSTRATCOM, the designated nuclear-capable bomber squadron is likewise “deployed” to its employment location, ready to

assume nuclear alert and disperse upon direction or execute nuclear tasking if so ordered. This squadron must be resourced, manned, and equipped consistent with this important national security commitment.

With respect to assessing nuclear posture and capability of the two types of forces, it is important to emphasize that the strategic missiles and the strategic nuclear-capable bombers are by design in different readiness and availability postures. The strategic missiles are “assigned” to USSTRATCOM on a daily basis. The force is deployed in its various employment locations daily and on full alert. Its readiness is crucial to nuclear credibility. The Commander, 20th Air Force—responsible for assigning ICBM forces to USSTRATCOM—created an additional annual inspection of assigned forces, the Missile Standardization, Evaluation, and Training (MSET) Assessment, to ensure their combat readiness. A satisfactory rating represents the commander’s assurance to the USSTRATCOM commander that ICBM forces are ready to perform their assigned missions.

In contrast, the nuclear-capable bomber force is not “assigned” to a combatant commander on a daily basis but rather is “apportioned,” in the form of Task Force 204, at a lower level of contingency readiness.²⁰ Eighth Air Force does not routinely conduct assessments of the bomber force to determine its readiness to execute USSTRATCOM war plans, nor is it required to do so. In fact, an assessment of the full, end-to-end capability of the bomber force to undertake the nuclear deterrence and global strike missions has not occurred for over a decade.

The Task Force recognizes that the Air Force is ultimately responsible for determining how best to assess whether its nuclear-capable forces are organized, trained, and ready to fulfill the combatant commander’s nuclear tasking. However—after visiting the majority of the nuclear-capable bomber units and reviewing their history of inspection results and after assessing recent lapses in their organizational practices and current readiness—the Task Force has concluded that their current performance does not meet the necessary and expected standard of excellence.

²⁰ Apportioned forces are those *assumed* to be available for contingency planning as of a specified point in time. Assigned forces are those placed under the combatant command (command authority) of a unified commander.

The Task Force notes favorably the Air Force leadership's strong declarative commitment to restore excellence to the nuclear mission, assuring that it is fully capable and seen to be capable of meeting the full spectrum requirements of the bomber nuclear deterrent and employment roles.

Proposed Organizational Structures

In the military, structure dominates how the organization behaves. There is general agreement that organizational and performance excellence must be restored to the nuclear mission area in all of its aspects: professional discipline, adherence to standards and procedures, esprit de corps, and mission fulfillment. The Task Force therefore recommends a fundamental change to Air Force organization, one that reorients and refocuses the Air Force on this critical national mission. The management, support, and day-to-day execution of nuclear deterrence demand an uncompromising level of technical expertise, procedural compliance, cautious approach to change, and a specialized perspective in formulating associated policy—attributes which, unfortunately, appear to have been lost.

Four major organizational changes are recommended to recapture top-to-bottom excellence:

1. Rename Air Force Space Command as Air Force Strategic Command (AFSTRAT).
2. Consolidate Air Force strategic nuclear-capable forces and global strike assets—ICBMs and bombers—in AFSTRAT.
3. Centralize acquisition and sustainment activities that support the nuclear mission in Air Force Materiel Command (AFMC).
4. Consolidate field-level nuclear weapons maintenance and storage functions in AFMC.

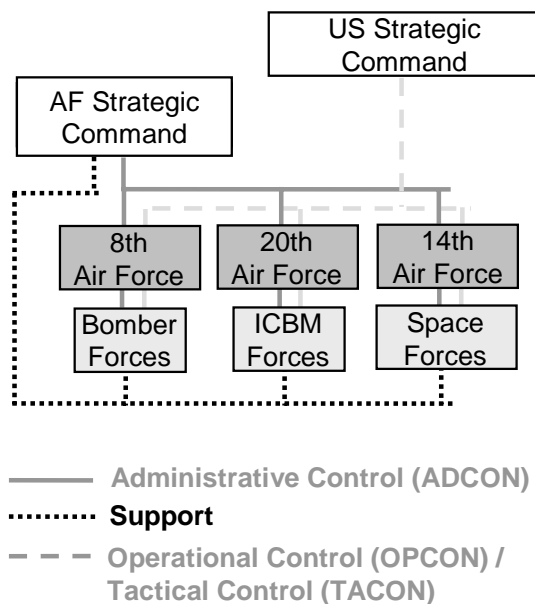
Discussion

The Task Force recommends redesignating AFSPC as Air Force Strategic Command (AFSTRAT), a single major command responsible for resourcing, supporting, and overseeing NAFs supplying nuclear-capable and global strike forces to USSTRATCOM. All Air Force bombers would be assigned to 8th Air Force, creating in essence a "Bomber Command." All remaining mission responsibilities of 8th Air Force,

such as ISR, C2, other intelligence organizations, and the emerging cyber capability, would be reassigned elsewhere. Additionally, 8th Air Force would be transferred from ACC to AFSTRAT.

Once the reorganization is completed, AFSTRAT would be the sole provider of nuclear-capable and global strike assets to joint commanders. The mix of 8th, 14th, and 20th Air Forces creates a synergistic, customer-aligned, globally focused AFSTRAT. In this role, AFSTRAT would conduct operational readiness inspections of all operational nuclear forces according to a common standard, preferably employing a “no-notice” inspection concept to measure accurately the day-to-day readiness posture of the operational units.

Figure 2 illustrates the envisioned organization and general reporting and control relationships.



NOTE: Bomber Forces will be assigned in accordance with Global Deterrent Force rotations.

Figure 2. Recommended USAF Organization ²¹

²¹ Operational Control (OPCON) is the command authority, exercised by commanders at any echelon at or below the level of combatant command, to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission.

This organizational rearrangement will require a significant realignment of professional qualifications and skill sets at both supervisory headquarters and field command levels. Major personnel redistribution actions will be necessary, especially in bolstering AFSPC to become AFSTRAT, to enable operational direction and oversight of the bomber fleet, advocacy requirements for the missile and bomber fleet, and undertaking general resource advocacy for the Air Force nuclear mission.

In the case of 8th Air Force, a bomber-focused NAF with both nuclear and conventional responsibilities, the staff must be “right sized” for these mission responsibilities so that it can address issues such as inspection comprehensiveness and certification of forces for nuclear and conventional tasking. Simply put, the Commander, 8th Air Force must be prepared to certify that he has the necessary authority and resources to be fully capable of performing his assigned mission elements.

Following this reorganization, the Air Force should evaluate the grade structure of the NAF commanders assigned to AFSTRAT. This assessment should ensure that the ranks of the various NAF commanders are equitable, commensurate with responsibility, and do not suggest that one or more NAFs have disproportionate priority or value.

Acquisition and Sustainment Organizational Structure

The nuclear sustainment organizational structure has also lacked focused advocacy and suffered from ambiguous lines of authority. The Air Force now recognizes the problem and is in the process of reorganizing the nuclear sustainment enterprise. In 2006, the Air Force created the Nuclear Weapons Center (NWC). It recently expanded the role of the NWC to improve advocacy for program management, sustainment, and logistics functions and will continue to capitalize on the expertise of AFMC.

The Task Force supports increasing the role of NWC for nuclear weapons, weapon interfaces, and missile-delivery systems acquisition and sustainment management. The Task Force further recommends organizational changes to provide a more centralized Air Force nuclear acquisition and sustainment community under AFMC. The proposed changes are reflected in Figure 3. The various connecting lines in the figure indicate general hierarchic relationships, not specific forms of control.

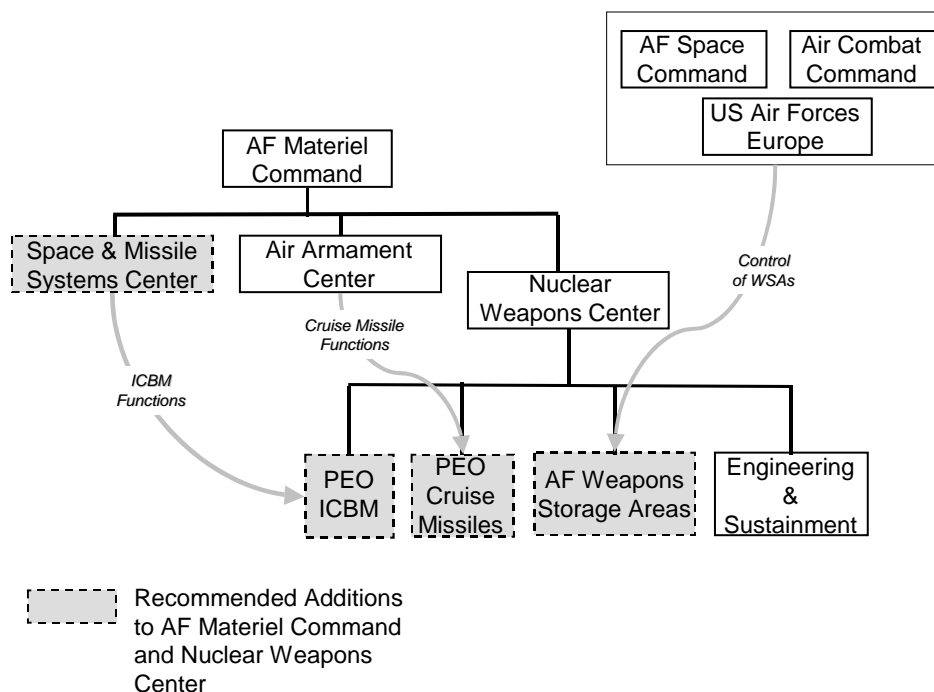


Figure 3. Changes to the Acquisition/Sustainment Organizations

Under this structure, the NWC would provide *all* support function oversight, including ownership and management of Air Force nuclear weapons storage areas (WSAs) in the United States and those under U.S. control on installations overseas. The NWC commander would have full responsibility for the security and operation of WSAs, including U.S.-controlled storage facilities in the U.S. Air Forces Europe (USAFE) area of responsibility.

WSA field commanders, reporting directly to NWC, would be responsible for both maintenance and security functions of the WSAs and would serve as the issue authority²² to the operational forces with the appropriate accountability transfer. Munitions Storage Areas (MSAs) would be separated from WSAs and would remain under the command and control of the host operational commander.

Physical upgrades to existing storage areas will likely be required to segregate the WSAs housing nuclear weapons assigned to NWC from munitions storage facilities which house the conventional munitions assigned to the host wing or base commander. This practical change insures that strong nuclear weapon custody standards apply within

²² Issue authority is the authority to issue nuclear weapons from the WSA to an operational unit.

the WSA, while established custody and handling standards for conventional munitions apply in the separated MSA. NWC units would globally standardize inspection procedures, preferably on a no-notice basis, to ascertain the state of readiness and security at such units.

With respect to nuclear-related acquisition and sustainment functions, the Task Force addressed two areas: Space and Missile Systems Center (SMC), an acquisition and sustainment product center assigned to AFSPC; and Program Executive Office (PEO) responsibilities for ICBMs and cruise missiles. SMC is the only product center in the Air Force assigned outside of AFMC. To gain the advantage of AFMC acquisition expertise and to conform to standard Air Force organizational practice, the Task Force recommends that SMC be realigned under AFMC. SMC would retain its role as the acquisition agency for the space mission supporting AFSTRAT, just as all other product centers in AFMC support their MAJCOM customers. This realignment has the advantage of allowing a stronger AFSTRAT focus on operational mission matters.

PEO responsibilities for ICBMs are currently aligned under SMC; the PEO for cruise missiles is aligned under the Air Armament Center within AFMC. Again, for conformance and standardization reasons as well as to profit from the U.S. Navy Strategic System Program (SSP) experience, the Task Force recommends realigning PEO responsibilities for ICBMs and cruise missiles under the Nuclear Weapons Center. (See Figure 3.) These recommended actions bring conformity, sharpened mission focus, and organizational standardization to nuclear-related acquisition and sustainment activities.

The NWC must ensure that weapon and weapon accessory parts for nuclear programs are procured through quality-proven vendors and thoroughly tested to ensure that they meet the requirements for safety, performance, and reliability. In that regard, an intensive effort should be undertaken to trace the origin of these parts as an integral part of quality assurance.

Finally, the Task Force recommends that the Commander, AFMC be designated as the Executive Agent for Air Force nuclear weapons and nuclear weapons-related materiel. As Executive Agent, the Commander, AFMC would be the single authority responsible for setting and enforcing standards as well as stewardship.

Headquarters Air Force

The Air Force's current headquarters champion for nuclear matters is the Director of Nuclear Operations, Plans, and Requirements (AF/A3/5N), a two-star general officer under the A3/5. Adding a one-star general officer as a deputy within the AF/A3/5N structure could provide needed breadth of coverage of nuclear issues as well as creating general officer growth and development opportunities. The one-star deputy should have experience that complements that of the director (ICBM or bomber).

Given the proposed organizational changes, the need for sustained leadership engagement, and the criticality of the nuclear mission, the Task Force believes a mechanism is necessary to ensure the sustained engagement of top leaders. Accordingly, the Task Force recommends the Secretary of the Air Force; the Chief of Staff of the Air Force; the Commander, AFSTRAT; the Director of Nuclear Operations, Plans, and Requirements (AF/A3/5N); and the Commander, Nuclear Weapons Center convene on a quarterly basis to review resource allocation issues and Service readiness to perform the nuclear mission. This should begin immediately in order to influence FY10 budget decisions.

Summary

The Task Force's recommendations appearing in section 5 provide the Air Force with a revised organizational structure that consolidates accountable leadership and stewardship for the nuclear and global strike missions. The proposed creation of AFSTRAT, the centralization of bomber forces, and the integrated stewardship of Air Force nuclear weapons together result in unambiguous Air Force ownership and accountability. Moreover, AFSTRAT, as the single provider of bomber, ICBM, and space forces, is moved into direct alignment with the gaining combatant commander. Also, the expanded responsibilities of the NWC commander and realignment of the nuclear-related acquisition and sustainment functions within AFMC standardize the handling of these functions. Finally, the strengthening of the Air Staff organization and nuclear-accountable field organizations provides the appropriate staffing and general officer expertise on nuclear matters. The Air Force IG would perform the role of overseeing AFSTRAT and AFMC nuclear inspection policies, practices, and results. The sum of

these recommendations addresses the legitimate concern of many that nuclear forces have become the neglected stepchild of the Air Force family.

Recommendations

1. The Secretary of the Air Force (SECAF) and CSAF should redesignate Air Force Space Command (AFSPC) as Air Force Strategic Command (AFSTRAT). This should be completed by September 2009.
2. SECAF and CSAF should direct the assignment of all Air Force bombers to 8th Air Force. This should be completed by September 2009.
3. SECAF and CSAF should direct the removal of all non-bomber-related missions from 8th Air Force (e.g., ISR and cyber-related organizations) and their reallocation to other Air Force commands. This should be completed by September 2009.
4. SECAF and CSAF should direct the reassignment of the reconstituted 8th Air Force from ACC to AFSTRAT. This should be completed by September 2009.
5. SECAF and CSAF should direct a review and validation of manning and resourcing of AFSTRAT headquarters, ACC headquarters, strategic missile and bomber NAFs, and their assigned wings. The revalidation and assignment actions should be completed by September 2009.
6. SECAF and CSAF should evaluate the grade structure of the NAF commanders assigned to AFSTRAT to ensure that the ranks of the various NAF commanders are equitable and commensurate with their responsibilities. This should be completed by September 2009.
7. CSAF should direct the consolidation of CONUS and U.S. Air Forces Europe (USAFE)-controlled Weapons Storage Areas under NWC. This should be completed by September 2010.
8. SECAF and CSAF should realign the Space and Missile Systems Center from AFSPC to AFMC and realign functions associated with ICBMs and cruise missiles, including Program Executive Office (PEO) responsibilities, under NWC. This should be completed by September 2009.
9. SECAF should designate Commander, AFMC as the Executive Agent for Air Force nuclear weapons and nuclear weapons-related materiel. This should be completed by September 2009.
10. CSAF should strengthen the Air Staff nuclear oversight and policy function by adding a one-star General Officer billet to the office of the Director of Nuclear Operations, Plans, and Requirements (AF/A3/5N). CSAF should also conduct a review to

establish the appropriate level of additional staff support required. This should be completed by September 2009.

11. The Task Force recommends that the Secretary of the Air Force; the Chief of Staff of the Air Force; the commander of a newly designated Air Force Strategic Command; the Director of Nuclear Operations, Plans, and Requirements (AF/A3/5N); and the Commander of the Nuclear Weapons Center review on a quarterly basis resource allocation and mission readiness for the Air Force nuclear mission. This should begin immediately in order to influence FY10 budget decisions.

Section 6. Sustainment

The Air Force recently assessed its nuclear sustainment enterprise, including key weapon system engineering functions, and subsequently undertook several noteworthy initiatives to address the findings. Based on Admiral Donald's investigation and the Air Force Review and Inventory Team's assessment of nuclear weapons-related materiel, the Air Force determined that its assets were collocated in an accountability system largely based on inventory management. As such, the system is concerned primarily with the movement of huge numbers of items without accounting for individual assets throughout the supply chain. While inventory management is a sound practice for many assets, some items, based on their impact on national security, require stricter controls for accountability. Based on this finding, the Air Force is actively developing a Positive Inventory Control system to ensure the strict accountability for predetermined assets throughout their life cycles. The Task Force endorses the development and implementation of Positive Inventory Control for nuclear weapons-related materiel.

In response to the findings in the Donald Report and the criticism concerning a lack a self-assessment culture, the Air Force initiated a review and assessment of its nuclear sustainment enterprise using external experts. The team prepared a comprehensive report that documents significant findings and solutions addressing systemic weaknesses across the sustainment enterprise.²³ The report presents recommendations addressing lines of authority; engineering support; logistics, maintenance, and storage processes; training and standardization; and organizational structure. The assessment team, chaired by the Air Force Nuclear Weapons Center (NWC) Commander, provides valuable analytical insight into potential corrective actions using a credible methodology based upon root cause analysis. The Task Force endorses the efforts of the assessment team and encourages Air Force senior leaders to review thoroughly the strategic-level recommendations and incorporate them into their overall roadmap for the nuclear sustainment enterprise. The Task Force commends the logistics

²³ Brigadier General Everett H. Thomas, Chairman, "Air Force Comprehensive Assessment of Nuclear Sustainment," Headquarters, U.S. Air Force, July 2008.

and sustainment communities for recognizing the importance of developing sustainable long-term solutions to systemic deficiencies.

Air Force Inventory Management

The Air Force defines Positive Inventory Control as the ability to identify and account for the condition and location of materiel anywhere in the supply chain, including storage, movement, maintenance, use, and disposal by a responsible agent at any point in time. Positive Inventory Control requirements, including wholesale distribution responsibilities (i.e., warehousing, shipping, and receiving responsibilities), serial number tracking, and accountability and information technology systems, have been defined. In order to validate inventory numbers, historical records will be maintained throughout the life cycle of each asset accounted for under Positive Inventory Control. The current culture and mindset for shipping and receiving assets will change under Positive Inventory Control to reflect the more stringent scrutiny required to maintain strict asset accountability. However, the Air Force must ensure that vulnerabilities within the supply chain for nuclear weapons-related materiel are identified and processes are put in place to mitigate these vulnerabilities.

The Air Force is currently implementing Positive Inventory Control for assets now defined as nuclear weapons-related materiel. The current DoD working definition of nuclear weapons-related materiel is as follows:

Classified or unclassified assemblies and subassemblies identified by the Service that comprise or could comprise a standardized war reserve nuclear weapon (including equivalent training devices) as it would exist once separated from its intended delivery vehicle.

Assets meeting this definition (primarily reentry vehicle components) are having their wholesale distribution responsibilities transferred from the Defense Logistics Agency (DLA) to an Air Force organization where the service will maintain exclusive asset control throughout the asset's entire life cycle. This initiative began in June 2008 and will be completed by October 31, 2008. Personnel responsible for asset accountability will manage a significantly reduced number of assets compared to those involved with

inventory management. This will provide priority attention to nuclear weapons-related materiel throughout the supply chain.

The Air Force's initial steps for implementing Positive Inventory Control over nuclear weapons-related materiel are critical for applying the necessary accountability controls to a specific subset of assets in the Air Force inventory. The definition of nuclear weapons-related materiel, however, does not cover other sensitive weapon system components (e.g., ICBM Guidance Sections and Aircraft Code Enabling Switches) that are integral to the nuclear weapons delivery systems. The Air Force should create a second category of assets governed by the same requirements as nuclear weapons-related materiel, including wholesale distribution responsibilities. This second category, which could be called "Sensitive Missile and Aircraft Nuclear Components," should encompass other sensitive nuclear delivery system components. The Air Force logistics community needs to provide to the applicable engineering authorities the guidance for creating this additional category of components for other sensitive nuclear delivery systems. The Air Force NWC Commander should be responsible for developing and certifying this list of components. These assets should be uniquely coded to maintain a distinction from those categorized as nuclear weapons-related materiel.

Significant improvements of the inspection and self-assessment system are required to assure the long-term viability of, as well as improved confidence in, the nuclear sustainment enterprise. The Air Force should routinely assess, address, and correct any identified weaknesses that impede strict asset accountability (Positive Inventory Control) within the nuclear sustainment supply chain. The Task Force fully supports the Air Force's plan to inspect depot-level and field-level maintenance and supply chain activities involving nuclear weapons-related materiel during Nuclear Surety Inspections. This will provide a long-term mechanism to ensure that the Service is concentrating on quality assurance in nuclear sustainment for operational units.

As the roles and responsibilities for depot-level Item Managers and field-level supply personnel evolve under the Positive Inventory Control construct, their duty titles should change to terms that identify them as unique within the Air Force supply chain (e.g., from Item Manager to Asset Accountability Specialist). While constituting only a

relatively minor change in the overall construct, new titles will distinguish those performing inventory management from those involved in asset accountability, thus encouraging the development and sustainment of a unique identity and culture. The Air Force plan to add nuclear weapons-related materiel to Nuclear Surety Inspections further highlights the need for a distinction between inventory managers and asset accountability specialists at both depot-level and field-level organizations. These new cultures must be seamlessly interwoven into a new and larger nuclear sustainment culture, and must grow to share its defining traits.

ICBM Engineering Community

Effective May 30, 2008, a Memorandum of Agreement between AFSPC and AFMC redirected the sustainment reporting chain from Headquarters Air Force through AFMC and the Air Force NWC to the 526th ICBM Systems Group. The Air Force sustainment community identified this issue during its assessment of its nuclear sustainment enterprise and recommended formally codifying the change to the organizational structure and lines of authority from the Air Staff down through AFMC and the NWC. The Task Force concurs with the recommendation to codify this new organizational structure to provide a better mechanism for effecting long-term organizational change. The Task Force also recommends that ICBM expertise should be required when filling the senior leadership positions within the 526th ICBM Group.

To address the engineering involvement in ICBM missile maintenance and weapons storage area operations, an Air Force assessment recommended the shift of engineers involved in Air Force Space Command technical engineering flights to the 526th ICBM Systems Group Chief Engineer to ensure clear lines of technical authority and oversight of on-site engineering. The engineering technicians and enlisted personnel currently assigned to technical engineering flights would remain under Air Force Space Command. Under this concept, engineers engaged in ICBM missile maintenance and weapons storage would have two distinct lines of engineering-related authority under different entities (526th ICBM Systems Group and the missile maintenance group commander), thus impairing their unity of effort. The Air Force should reassess the division of technical engineering support provided to the ICBM missile maintenance

organizations to ensure unity of effort under a single entity at the wing level.

Consideration should be given to the primary responsibilities of the engineering functions (either operational or support) when determining the parent organization.

Recommendations

1. The Air Force Deputy Chief of Staff for Logistics, Installations & Mission Support (AF/A4/7) should develop guidance for creating a second category of assets that encompasses other sensitive nuclear delivery system components, which are distinct from nuclear weapons-related materiel but should be governed by the same requirements. The NWC Commander should identify and certify the list of items that fall within this asset category by September 2009.
2. The Air Force Deputy Chief of Staff for Logistics, Installations & Mission Support (AF/A4/7) should redesignate asset accountability personnel to distinguish those directly involved with the nuclear weapons-related materiel supply chain (and potentially other sensitive nuclear delivery system components) from inventory managers by September 2009.
3. The Task Force concurs with the Air Force's action to codify the organizational change for the 526th ICBM Systems Group to report through NWC to AFMC. Additionally ICBM expertise should be required when filling the senior leadership positions within the 526th ICBM Group.
4. AFMC should reassess the division of technical engineering support provided to the ICBM missile maintenance organizations to ensure unity of effort under a single entity.

Appendix A. Tasking Letter



THE SECRETARY OF DEFENSE
1000 DEFENSE PENTAGON
WASHINGTON, DC 20301-1000

June 12, 2008

The Honorable James R. Schlesinger
c/o The Mitre Corporation
7515 Colshire Drive, N643
McLean, VA 22102

Dear Dr. Schlesinger:

On March 25, 2008, I appointed Admiral Kirkland H. Donald, U.S. Navy, to investigate the facts and circumstances surrounding the accountability for, and shipment of, sensitive missile components provided to the Government of Taiwan on or around August 2006. The following day, I directed the Secretaries of the Navy and Air Force, and the Director of the Defense Logistics Agency, to undertake a comprehensive review and physical inventory of all nuclear weapons and nuclear weapons-related materials under their possession or custody. I have reviewed those reports and am directing appropriate action.

It now would be helpful to me to have your independent, professional advice on the organizational, procedural and policy improvements necessary to ensure the highest levels of accountability and control are maintained in the stewardship and operation of nuclear weapons, delivery vehicles, sensitive components, and basing procedures by the Department of Defense (DoD). I appreciate your willingness to head the Task Force on Nuclear Weapons Management. Additional members include: General Michael Carns, Admiral Ed Giambastiani, John Hamre, Frank Miller, JD Crouch, Chris Williams, and Jacques Gansler.

Your advice should focus on enhancing the Department's ability to sustain public confidence in the safe handling of DoD nuclear assets and bolster a clear international understanding of the continuing role and credibility of the U.S. nuclear deterrent. In preparing your advice, you should consider Admiral Donald's investigative report as well as the reviews conducted by the Secretaries of the Navy and Air Force and the Director of the Defense Logistics Agency.

I request your initial assessment within 60 days from the date of this appointing letter, focusing on organizational, procedural, policy and other matters involving the Department of the Air Force. Your final report, addressing the entire Department, should be submitted within 120 days from the date of this letter. Your final report should include an executive summary and an unclassified version suitable for public release.

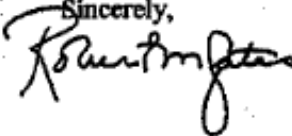


OSD 07864-08



DoD personnel will collect information for your review and assist you as necessary. You are to have access to all relevant DoD investigations and other DoD information unless prohibited by law. Reviewing all written materials relevant to these issues should be sufficient to allow you to provide your advice. Should you believe it necessary to travel or conduct interviews, the Director of Administration and Management (DA&M) will make appropriate arrangements. DoD personnel will cooperate fully with your review and make available at your request all relevant documents and information.

By copy of this letter, I request the Under Secretary of Defense for Policy, in coordination with DA&M, establish the Task Force on DoD Nuclear Weapons Management as a subcommittee of the Defense Policy Board, which will review and consider your advice. I also request DA&M secure the necessary technical, administrative and legal support for your review. This support may be provided by the DoD Components on a non-reimbursable basis and may include consultant services and assistance from Federally-Funded Research and Development Centers and National Laboratories. DA&M will coordinate with you to develop a budget to support your efforts, and the Under Secretary of Defense (Comptroller) will provide the necessary budgetary resources.

Sincerely,


cc:
Secretaries of the Military Departments
Chairman of the Joint Chiefs of Staff
Under Secretaries of Defense
Assistant Secretaries of Defense
General Counsel of the Department of Defense
Director, Operational Test and Evaluation
Inspector General of the Department of Defense
Assistants to the Secretary of Defense
Director, Administration and Management
Director, Program Analysis and Evaluation
Director, Net Assessment
Directors of the Defense Agencies
Directors of the DoD Field Activities

Appendix B. Referenced Documents

The following are key reports reviewed by The Task Force. These reports supplement the Task Force members' experience, professional knowledge, and research over past decades.

Center for Counterproliferation Research—National Defense University and Center for Global Security Research—Lawrence Livermore National Laboratory. "U.S. Nuclear Policy in the 21st Century: A Fresh Look at National Strategy and Requirements—Final Report." (n.d.)

Dail, Lieutenant General Robert T. "Comprehensive Review and Physical Inventory of Nuclear Weapons-Related Materiel—Final Report." May 2008.

Department of Defense. "Nuclear Posture Review for FY 2001." December 2001.

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Department of Defense. Program Budget Decision (PBD) 720: "Air Force Transformation Flight Plan." December 28, 2005.

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Appendix C. Observations Regarding Current Conditions

The following observations were derived from Task Force discussions with senior Air Force, Major Command (MAJCOM), Numbered Air Force (NAF), and wing-level leaders from across the Air Force nuclear enterprise. These observations have been included to illustrate Task Force findings and recommendations.

1. The Air Force nuclear mission has been devalued and allowed to atrophy.

- “No one in the Air Force at higher levels articulates the need for Air Force nuclear forces.”
- Comment from the field: “We need a four-star nuclear commander with MAJCOM resources for the entire mission set.”
- People in the nuclear enterprise struggle within widely matrixed organizations. They confront rapidly changing requirements and sometimes conflicting directives.
- Many Airmen were skeptical of hearing repeated pronouncements that the nuclear mission is “number one.”
- ACC’s most senior officer dedicated to nuclear issues is an O-6.
- Nuclear deterrence is no longer taught at the War Colleges.
- “The 20th Air Force commander (ICBMs) is a two star; the 8th Air Force (bombers) and 14th Air Force (space) are three stars. That tells you Air Force priorities.”
- No one explains to junior Air Force personnel why ICBMs are important.
- Funds to address B-52 electrical systems have been #1 below the cut line on ACC’s unfunded priority list over the past eight years.
- The Air Force has spent the “billions” to do the big work; but it has not spent the “millions” to support commanders.

2. B-52 and Minuteman ICBM forces are suffering from severe shortages of experienced personnel in key nuclear mission areas.

- Nuclear squadrons and wings are significantly undermanned, especially in numbers of qualified maintenance personnel and missile wings’ security forces.
- Maintenance manpower shortages at B-52 wings:
 - One wing commander said he was short 300 maintenance personnel; another wing commander was short 100.
 - One wing cannot generate all its aircraft due to maintenance crew shortages.
 - One wing only has 66 percent of assigned crew chiefs; Wing is 130 personnel below its authorized manning level (in part due to overseas deployers).
 - AF personnel system is insensitive to nuclear requirements.

- One wing is unable to fully execute its annual training sortie requirement due to significant aircraft maintenance manpower shortfalls.
 - Wing Commander told of a “running battle” he had with AFPC to fill five key slots—after eight months only three were filled.
 - AFPC responded that there is just not enough nuclear expertise to go around.
- Maintenance manpower officer shortages at missile wings:
 - Quotes from wing leadership
 - “The missile maintenance field is broken.”
 - “We need a nuclear career field.”
 - There are three Year Groups with only one person in each with a missile maintenance background.
 - The 1993 Year Group has no missile maintainers in its ranks.
 - Some ICBM maintenance group commanders are on their second Group Command tour because there is no senior level expertise to fill in behind them.
 - There are no majors available to fill the four Major (O-4) missile maintenance billets at one missile wing.
- Intelligence support to nuclear wings is weak (bombers) or nonexistent (ICBMs).
 - One missile wing relies on informal coordination with the nearby airlift wing to obtain occasional updates of background materials.
 - Another missile wing must rely upon the host wing's intelligence personnel.
 - Without dedicating sufficient intelligence resources to nuclear matters, it is impossible to understand one's adversaries.
- There is no formal requirement to identify and code key nuclear manpower authorizations.
 - Wing commander comment: “The Air Force needs to establish a nuclear operations personnel baseline and not permit deployments of people below that baseline.”
- Personnel Reliability Program (PRP) medical support staffing is under-resourced.
 - Personnel are deployed in support of Operation Enduring Freedom and Operation Iraqi Freedom).
 - One unit relayed they were so short in PRP personnel that they could not be inspection ready without advanced notice.
 - Must take one person “out of hide” and give them 30 days to make PRP program inspection ready; led to 20% error rate discovered during inspection of PRP-assigned personnel medical files.
- Deployments in support of regional conventional operations decrease manpower available to the nuclear mission.

- Standing alert duty in missile silos, for example, is not viewed as “deployed.”
- Field comments:
 - If you are not a “deployer,” you do not get promoted.
 - If you are not expeditionary, you are not deemed important to the Air Force.
- Wing does not receive a replacement for the deployed member.
 - This creates, in effect, a “tax” on manning at the unit level.
- Air Force promotion practices “incentivize” volunteering for deployment to Iraq or Afghanistan for a year, without unit commander involvement, approval, or recourse.
- No USSTRATCOM “grads” in senior levels at 8th Air Force; only one is on the 2d BW staff.
- The Emergency Action Message billet at USSTRATCOM has been vacant for 15 months.
- The ICBM force has lost 10 years of nuclear expertise through follow-on assignments to the space field; therefore “we don’t get to recycle the expertise we build.”
- ICBM security forces are strained, especially at Force Protection Conditions; this leads to major stress on missile maintenance, which must be postponed when security is not available.
- Approximately 80–90 percent of the security forces personnel at one missile wing are first-term Airmen.

3. The Inspections and Staff Assistance Visit (SAV) process suffers from serious flaws.

- The Nuclear Surety Inspection (NSI) pass rate dropped precipitously in 1999 from 94 to 64 percent.
 - More significantly, there has been wide oscillation in the amplitude of the pass rate from year to year since 1998.
 - In 2006 and 2007—before the Minot-Barksdale incident—the NSI pass rate was 100 percent, a result not seen over the last 20 years.
 - In 2008 both bomber wings failed their NSIs.
 - The standard deviation over time with respect to bomb wing’s passing or failing NORIs/NSIs is very high.
 - The Wing leaders have no confidence in the inspectors or SAVs.
 - “We are inspected by people not qualified to inspect.”
 - “SAVs are worthless.”
 - Bomber commander quote: “There are 300 technical tasks for an ICBM NSI compared to 1,300 for a bomber NSI.”

4. Guidance and procedures are inadequate and/or confusing.

- The Concept of Operations (CONOPS) for nuclear missions is developed at the Wing and Squadron levels.
 - Changes to AFI 21-204 procedures after the Minot weapons transfer incident require three 1-hour transfers of custody necessary to upload one bomber.
 - “In SAC days, the complexity was in planning, not in execution; today, execution is complex”; there are too many “clarification messages” from USSTRATCOM regarding the plan/plan execution.

5. DoD/AF Security guidance is unrealistic and inconsistent.

- DoD's Nuclear Security Instruction (5210.41M) is unrealistic.
 - The document was designed to force the Air Force to spend additional funds on safety/security which it has only done partially.
 - As a result, in their view, units are unable and never will be able to meet the guidance.
 - AF and MAJCOM Instructions which implement 5210.41M do not correspond with 5210.41M, thereby creating confusions and opportunities to fail.
 - DoD inspects to 5210.41M standard, while Air Force inspects to Air Force and/or MAJCOM standards.

6. Nuclear exercise and training programs are inadequate

- There has not been a large-scale, end-to-end nuclear exercise in over a decade.
- The training for the dual-capable bomber force has essentially been shifted from nuclear operations to the conventional mission.
 - Bomb-wing cruise-missile training shapes for nuclear weapons are in such poor condition that they are not useful for training.
 - Current Air Force education programs at professional schools lack coverage of broader strategy and deterrence concepts.
 - Weapons not on site, training munitions in short supply, not realistic and in poor physical condition.

7. Key support equipment and training devices are inadequate and under-resourced.

- Missile transfer vans/warhead transfer vans require upgrades.
- ICBM weapon system test sets under-funded; the coding system, Minute Entry Electronic Distribution System (MEEDS), is faulty.
- Helicopters dedicated to ICBM security are in need of replacement.

Appendix D. Current B-52 Basing Status

Current Status

Minot – 27 B-52s

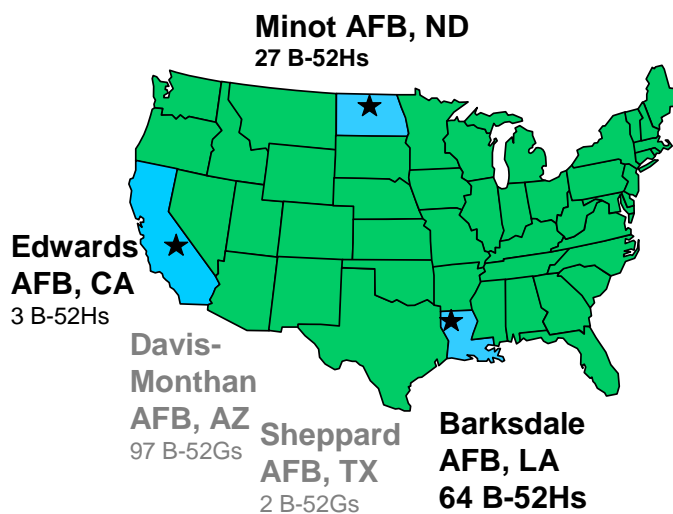
5 BW (ACC) 12CC; 3 BAI; 2 AR
10 Unfunded AR

Barksdale – 64 B-52s

2 BW (ACC) 15 TF; 24 CC; 7 BAI
53 WG (ACC) 2 Test Coded
917 WG (AFRC) 8 CC; 1 BAI
7 Unfunded AR

Edwards - 3 B-52s

412 TW 2 Test Coded
NASA 1 Unfunded AR
(Heavy lift platform)



Appendix E. Abbreviations and Acronyms

ACC	Air Combat Command
ADCON	Administrative Control
AEF	Air Expeditionary Force
AF	Air Force
AFB	Air Force Base
AFIA	Air Force Inspection Agency
AFMC	Air Force Materiel Command
AFSPC	Air Force Space Command
AFSTRAT	Air Force Strategic Command
ALC	Air Logistics Center
ALCM	Air-Launched Cruise Missile
BRAC	Base Realignment and Closure
BWIC	Bomber Weapons Instructor Course
C2	Command and Control
CCTS	Combat Crew Training School
CFIS	Combat Flight Instructor School
CONOPS	Concept of Operations
CONUS	Continental United States
CSAF	Chief of Staff of the Air Force
DLA	Defense Logistics Agency
DoD	Department of Defense
DSB	Defense Science Board
DTRA	Defense Threat Reduction Agency
FFRDC	Federally Funded Research and Development Center
FY	Fiscal Year
GDF	Global Deterrence Force
ICBM	Intercontinental Ballistic Missile
IG	Inspector General
ISR	Intelligence, Surveillance, and Reconnaissance
MAJCOM	Major Command
MEI	Mission Effectiveness Inspection
Mk	Mark
NAF	Numbered Air Force
NNSA	National Nuclear Security Administration
NORI	Nuclear Operational Readiness Inspection
NSI	Nuclear Surety Inspection
NWC	Nuclear Weapons Center
OPCON	Operational Control

PBD	Program Budget Decision
PEO	Program Executive Officer
PME	Professional Military Education
PRP	Personnel Reliability Program
SA-ALC	San Antonio Air Logistics Center
SAC	Strategic Air Command
SAV	Staff Assistance Visit
SECAF	Secretary of the Air Force
SES	Senior Executive Service
SMC	Space and Missile Systems Center
SME	Subject Matter Expert
SORT	Strategic Offensive Reductions Treaty
SSP	Strategic Systems Program
SWD	Special Weapons Directorate
SWS	Strategic Weapons School
TAC	Tactical Air Command
TACON	Tactical Control
UMD	Unit Manning Document
U.S.	United States
USAF	U.S. Air Force
USAFE	United States Air Forces Europe
USJFCOM	U.S. Joint Forces Command
USSTRATCOM	U.S. Strategic Command
WMD	Weapons of Mass Destruction
WSA	Weapons Storage Area

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